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FM 30-42

WAR DEPARTMENT

BASIC FIELD MANUAL

MILITARY INTELLIGENCE

IDENTIFICATION OF FOREIGN ARMORED VEHICLES GERMAN, JAPANESE, RUSSIAN ITALIAN, AND FRENCH

June 20, 1941

REGRADED UNCLASSIFIED BY
AUTHORITY OF DOD DIR. 5200. 1 R
BY RAWS ON 041806

Reference

Statistics and Reference Div.

FM 30–42

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Prepared under direction of the
Chief of Staff

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UNITED STATES
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WASHINGTON : 1941

WAR DEPARTMENT,
WASHINGTON, June 20, 1941.

FM 30–42, Military Intelligence, Identification of Foreign Armored Vehicles, German, Japanese, Russian, Italian, and French, is published for the information and guidance of all concerned.

[A. G. 062.11 (4–2–41).]

BY ORDER OF THE SECRETARY OF WAR:

G. C. MARSHALL,
Chief of Staff.

OFFICIAL:

E. S. ADAMS,
Major General,
The Adjutant General.

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(For explanation of symbols, see FM 21–6.)

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FM 30–42

BASIC FIELD MANUAL

MILITARY INTELLIGENCE

IDENTIFICATION OF FOREIGN ARMORED VEHICLES GERMAN, JAPANESE, RUSSIAN, ITALIAN, AND FRENCH

SECTION I

GENERAL

■ 1. PURPOSE.—The purpose of this manual is to serve as a guide in the identification of foreign armored vehicles. The material has been secured from many sources. It is the best available but may be incomplete and, in some respects, inaccurate.

■ 2. SCOPE.—This manual, containing illustrations with explanatory data relative to foreign armored vehicles, German, Japanese, Russian, Italian, and French, is published for limited distribution. When illustrations are not given, blank spaces have been left so that they may be added when provided. The manual will be used for instruction of officers and men in the appearance and general characteristics of armored vehicles and will be safeguarded as prescribed in AR 380–5.

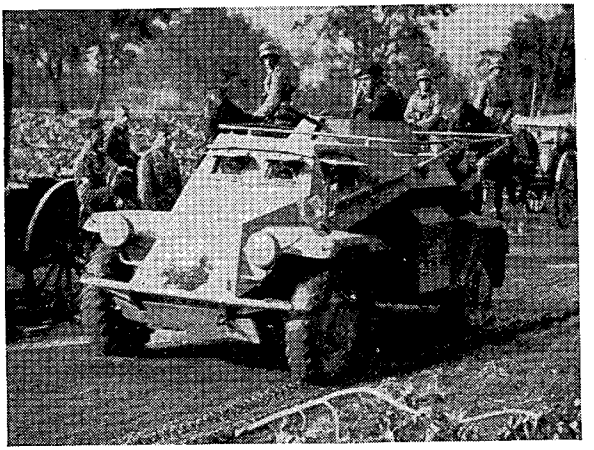
■ 3. METHOD OF IDENTIFICATION AND CLASSIFICATION OF ARMORED VEHICLES.—For method of identification and classification of foreign armored vehicles see FM 30–40.

US ARMY MILITARY HISTORY INSTITUTE
MCMLXVII

SECTION II

ARMORED VEHICLES OF THE GERMAN ARMY

GERMAN
ARMY

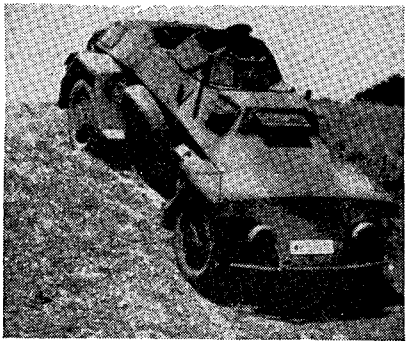


SCOUT CAR
HORCH LEICHTER PANZERSPAHWAGEN I
(HORCH LIGHT ARMORED CAR)

1. Crew: Two or three (gunner and driver; sometimes radio operator also).
2. Armament: One machine pistol and one machine gun mounted for ground or antiaircraft fire.
3. Ammunition:
4. Armor, thickness:
   Upper structure:
   Front: 0.39-inch
   Sides: 0.31-inch.
   (Plates all set at angle. Proof against armor-piercing small ammunition all around.)
5. Turret: No.
6. Vision:
7. Ventilation:
8. Communications: Some cars of this type possess radio.
9. Dimensions:
   Length: 10 feet.
   Width: 7 feet.
   Height: 5 feet.
10. Weight: 4 tons (4 wheels).
11. Motor:
    Type:
    Cooling system:
    Horsepower:
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country: 20 miles per hour.
    Road: 53 miles per hour.
    Maximum:
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Normal automobile type.
19. Performance:
    Ground clearance:
    Climbs ------° slopes.
    Negotiates vertical obstacle ------ high.
    Crosses trenches ------ wide.
    Fords streams ------ deep.
20. Remarks: Open top has grating to hold out grenades but is vulnerable to fire from above.

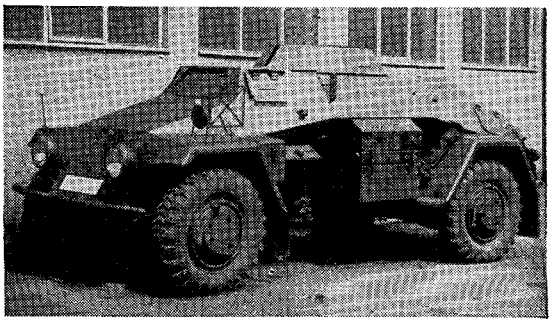
GERMAN ARMY

SCOUT CAR
HORCH LEICHTER PANZERSPAHWAGEN I
(HORCH LIGHT ARMORED CAR)



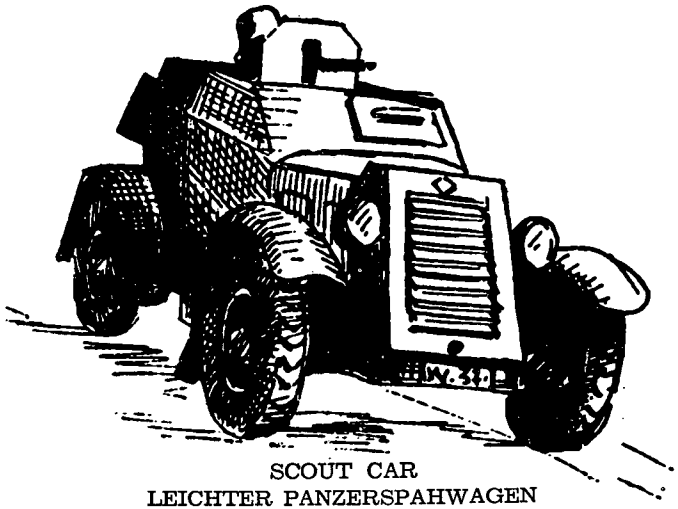
Top

Front Rear



Side

GERMAN
ARMY



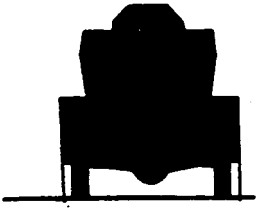
SCOUT CAR
LEICHTER PANZERSPAHWAGEN
(LIGHT ARMORED CAR)
M–I

1. Crew: Two (driver and gunner) or three (if fitted with radio).
2. Armament: One light machine gun (mounted for ground or antiaircraft fire).
3. Ammunition:
4. Armor, thickness:
   Upper structure: Less than 0.39-inch.
   Front: 0.39-inch. Proof against armor-piercing small arms ammunition only in front.
   Sides: Less than 0.39-inch.
5. Turret: No.
6. Vision:
7. Ventilation:
8. Communications: Some cars of this type possess radio.
9. Dimensions:
   Length: 10 feet 0 inches.
   Width: 5 feet 7 inches.
   Height: 5 feet 5 inches.
10. Weight: 1.77 tons (4 wheels).
11. Motor:
    Type:
    Cooling system:
    Horsepower:
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country:
    Road: 50 miles per hour.
    Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Normal automobile type.
19. Performance:
    Ground clearance:
    Climbs _____° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams _____ deep.
20. Remarks: This type is constructed for light scouting purposes. It possesses a completely open top. The machine gun is provided with a shield. Believed now to be an obsolescent type.

GERMAN
ARMY

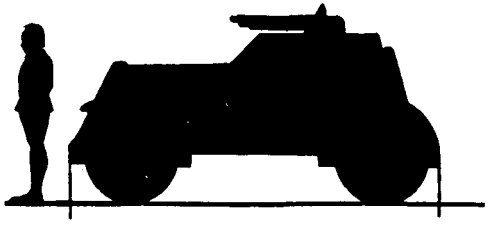
SCOUT CAR
LEICHTER PANZERSPAHWAGEN
(LIGHT ARMORED CAR)
M-I

Top



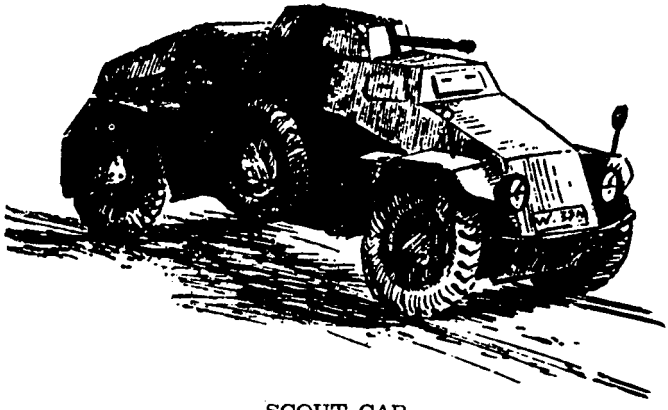
Front

Rear



Side

GERMAN
ARMY



SCOUT CAR
HORCH LEICHTER PANZERSPAHWAGEN II
(HORCH LIGHT ARMORED CAR II)

1. Crew: Two (driver and gunner-commander).
2. Armament: One 20-mm machine gun; one machine pistol.
3. Ammunition:
4. Armor, thickness:
   Upper structure:
   Front: 0.39 inch. Sides: 0.31 inch. Plates all set at angle. Proof against armor-piercing small arms ammunition all around.
5. Turret: Yes.
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 10 feet.
   Width: 7 feet.
   Height: 5 feet 2 inches.
10. Weight: 4.2 tons.
11. Motor:
    Type:
    Cooling system:
    Horsepower:
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country: 20 miles per hour
    Road: 53 miles per hour.
    Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Normal automobile type.
19. Performance:
    Ground clearance:
    Climbs _____° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams _____ deep.
20. Remarks: An alternative model of the Horch Panzerspahwagen I, with slightly larger turret. It has the same large opening on the top protected by a grating only.

GERMAN
ARMY

SCOUT CAR
HORCH LEICHTER PANZERSPAHWAGEN II
(HORCH LIGHT ARMORED CAR II)

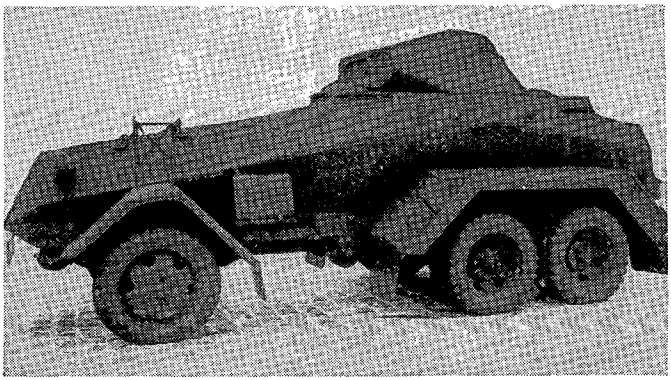
Top

Front

Rear

Side

GERMAN
ARMY

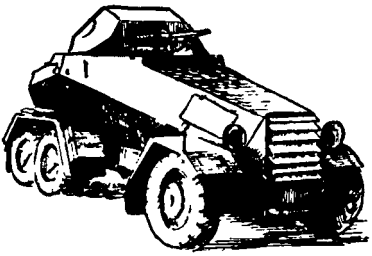


SCOUT CAR
SCHWERER PANZERSPAHWAGEN 36
(HEAVY ARMORED CAR TYPE 1936)

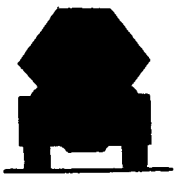
1. Crew: Four (two drivers, one gunner-commander, one gunner) (one driver acts as radio operator).
2. Armament: One 20-mm machine gun; one machine pistol.
3. Ammunition: 1,800 rounds for light machine gun; 200 rounds for heavy gun.
4. Armor, thickness:
   Upper structure: 0.39 inch.
   Front: 0.59 inch. } All armor plates set at angle.
   Sides: 0.39 inch. }
   Turret: 0.59 inch. }
5. Turret: Yes.
6. Vision:
7. Ventilation:
8. Communications: Some of this type have radio with rigid frame aerial which reduces traverse of turret guns to 150° and blocks antiaircraft fire.
9. Dimensions:
   Length: 16 feet.
   Width: 7 feet 4 inches.
   Height: 8 feet.
10. Weight: 6½ tons (6 wheels).
11. Motor:
    Type: V–8.
    Cooling system: Water.
    Horsepower:
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country: 20 miles per hour.
    Road: 40 miles per hour.
    Maximum: 50 miles per hour.
    Reverse: 30 miles per hour.
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill: 180 miles.
16. Gear speeds and ratios: 5 gear speeds.
17. Turning radius: 10 to 12 feet.
18. Suspension, type: Normal automobile type.
19. Performance:
    Ground clearance:
    Climbs ------° slopes.
    Negotiates vertical obstacle ------ high.
    Crosses trenches ------ wide.
    Fords streams ------ deep.
20. Remarks: This car carries a smoke-producing apparatus. Believed now to be an obsolescent type.

GERMAN
ARMY

SCOUT CAR
SCHWERER PANZERSPAHWAGEN 36
(HEAVY ARMORED CAR TYPE 1936)

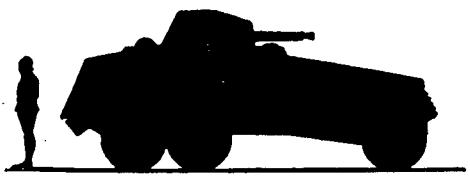


View



Front

Rear



Side

GERMAN
ARMY

SCOUT CAR
8 RAD PANZERSPAHWAGEN
(8-WHEEL HEAVY ARMORED CAR)

1. Crew: Four or five (two drivers, one gunner-commander, one gunner) (if fitted with radio, also a radio operator).
2. Armament: One 20-mm machine gun; one light machine gun.
3. Ammunition:
4. Armor, thickness:
   Upper structure:
   Front: 0.79 inch.
   Sides: 0.2 to 0.79 inch.
   Turret: 1.18 inches.
5. Turret: Yes.
6. Vision:
7. Ventilation:
8. Communications: Certain cars of this type possess radio.
9. Dimensions:
   Length: 17 feet 6 inches.
   Width: 8 feet.
   Height: 8 feet 9 inches.
10. Weight: 9 to 10 tons (8 wheels).
11. Motor:
    Type:
    Cooling system:
    Horsepower:
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum: 53 miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Normal automobile type.
19. Performance:
    Ground clearance:
    Climbs _____° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams _____ deep.
20. Remarks:

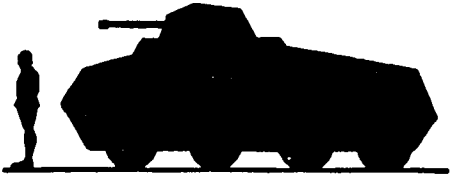
GERMAN
ARMY

SCOUT CAR
8 RAD PANZERSPAHWAGEN
(8-WHEEL HEAVY ARMORED CAR)

View

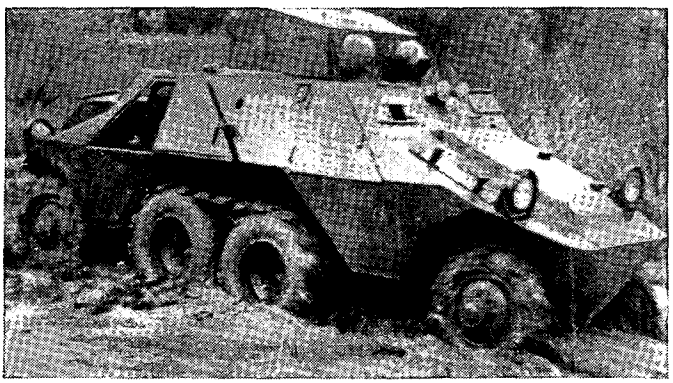
Front

Rear



Side

GERMAN
ARMY



ARMORED CAR
(NEW MODEL)

1. Crew:
2. Armament:
3. Ammunition:
4. Armor, thickness:
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length:
   Width:
   Height:
10. Weight:
11. Motor:
   Type:
   Cooling system:
   Horsepower:
   Horsepower per ton:
12. Drive:
13. Speed:
   Cross country:
   Road:
   Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
   Ground clearance:
   Climbs _____° slopes.
   Negotiates vertical obstacle _____ high.
   Crosses trenches _____ wide.
   Fords streams _____ deep.
20. Remarks:

GERMAN
ARMY

ARMORED CAR
(NEW MODEL)

Top

Front

Rear

Side

GERMAN
ARMY

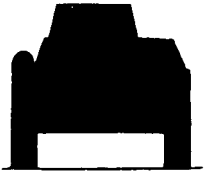
LIGHT TANK
K I-KRUPP

1. Crew: Two.
2. Armament: Two machine guns.
3. Ammunition:
4. Armor, thickness:
   Upper structure:
   Front: 0.50 inch.
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length:
   Width:
   Length:
10. Weight: 5.5 tons metric.
11. Motor:
    Type:
    Cooling system:
    Horsepower:
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country: 12 miles per hour.
    Road:
    Maximum: 28 miles per per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Caterpillar 4 rollers; 1 tension wheel at rear; 3-track suspension wheel.
19. Performance:
    Ground clearance:
    Climbs _____° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams _____ deep.
20. Remarks: Believed to be an obsolete type.

GERMAN
ARMY

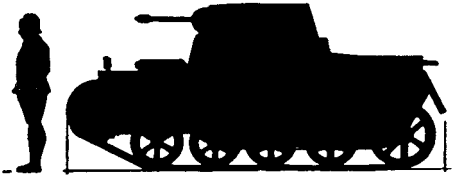
LIGHT TANK
K I-KRUPP

View



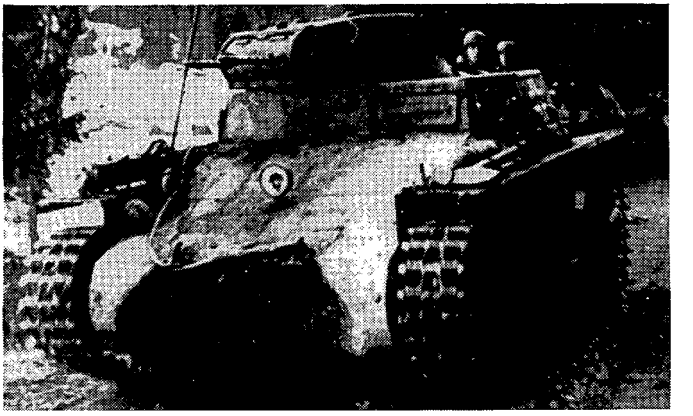
Front

Rear



Side

GERMAN
ARMY

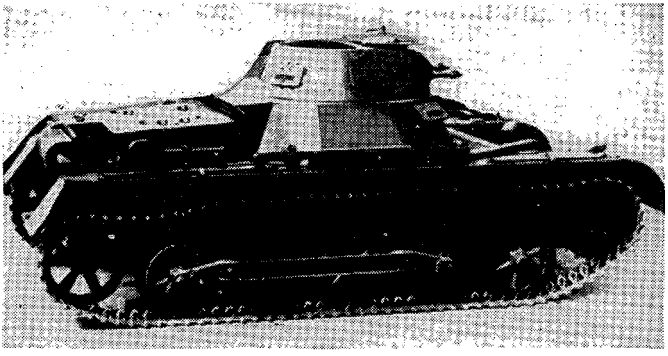


LIGHT TANK
PZ KW I (PANZER KRAFTWAGEN I)
(MAYBACH TYPE)

1. Crew: Two (driver and gunner).
2. Armament: Two 7.9-mm machine guns coaxially mounted on roller type mounting.
3. Ammunition: 1,625 rounds (armor-piercing).
4. Armor, thickness: 0.55 inch.
   Upper structure:
   Front:
   Sides:
5. Turret: Turret has a rounded back, very squat, and is mounted on the right hand side of tank.
6. Vision:
7. Ventilation:
8. Communications: Radio receiver.
9. Dimensions:
   Length: 13 feet.
   Width: 6 feet 5 inches.
   Height: 5 feet 8 inches.
10. Weight: 5.7 tons.
11. Motor:
    Type: V–8.
    Cooling system: Air.
    Horsepower: 90 to 100.
    Horsepower per ton:
12. Drive: Front sprocket.
13. Speed:
    Cross country: 12 miles per hour.
    Road: 32 miles per hour.
    Maximum:
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill: 95 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Five-spoked bogie wheels, 1 independently sprung, and the last 4 being connected by an outside girder bearer. Rear idler wheels almost on the ground. Four track support wheels.
19. Performance:
    Ground clearance: 1 foot.
    Climbs 45° slopes.
    Negotiates vertical obstacle ------ high.
    Crosses trenches 4 feet 7 inches wide.
    Fords streams 2 feet deep.
20. Remarks: A large number of these tanks are in existence and may be converted into machine-gun carriers. No more being manufactured.

GERMAN ARMY

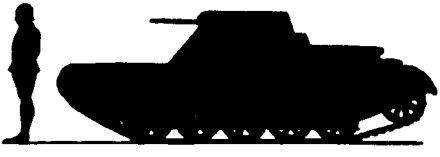
LIGHT TANK
PZ KW I (PANZER KRAFTWAGEN I) (MAYBACH TYPE)



View

Front

Rear



Side

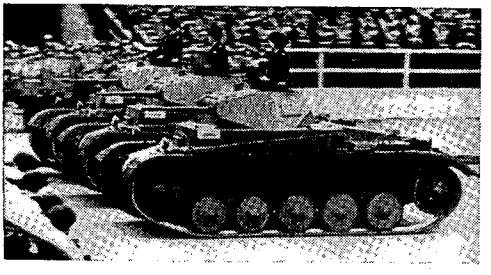
GERMAN ARMY

LIGHT TANK
PZ KW II (PANZER KRAFTWAGEN II)
(MAYBACH TYPE)

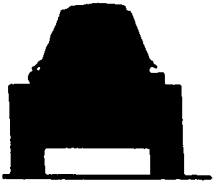
1. Crew: Three (gunner, driver, radio operator).
2. Armament: One 20-mm machine gun; one light machine gun in roller-type mountings.
3. Ammunition:
4. Armor, thickness: Thickest known, 0.59 inch.
   Upper structure:
   Front:
   Sides:
5. Turret: Similar to PZ KW I with flat back.
6. Vision:
7. Ventilation:
8. Communications: Radio receiver.
9. Dimensions:
   Length: 14 feet, 8 inches.
   Width: 6 feet.
   Height: 5 feet, 6 inches.
10. Weight: 9 tons.
11. Motor:
    Type: V-8.
    Cooling system: Air.
    Horsepower: 125.
    Horsepower per ton: 13.9.
12. Drive: Front sprocket.
13. Speed:
    Cross country: 18 miles per hour.
    Road: 28 miles per hour.
    Maximum:
14. Cruising radius, at _____ speed ____ miles.
15. Operating distance without refill: 125 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Five large bogie wheels, Christie type; 4 track support wheels. Older types have 6 small bogies, 4 connected by girders.
19. Performance:
    Ground clearance:
    Climbs _____° slopes.
    Negotiates vertical obstacle 1 foot 11 inches high.
    Crosses trenches 4 feet 11 inches wide.
    Fords streams 2 feet 6 inches deep.
20. Remarks: This tank may be converted into a flame thrower.

GERMAN ARMY

LIGHT TANK
PZ KW II (PANZER KRAFTWAGEN II)
(MAYBACH TYPE)

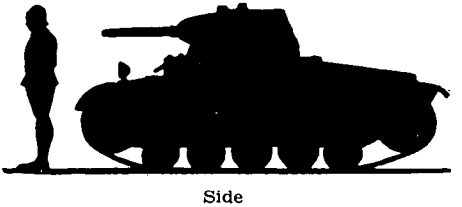


View



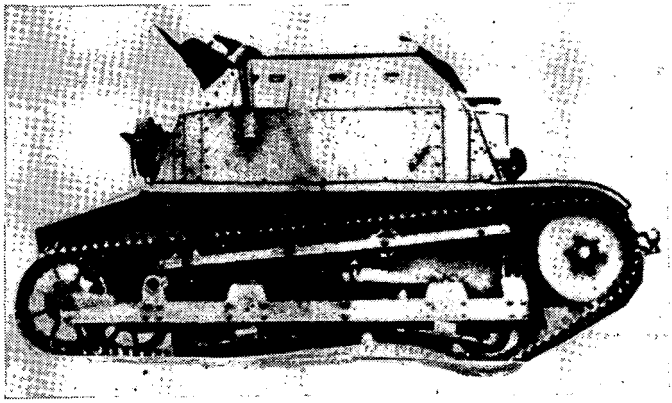
Front

Rear



Side

GERMAN
ARMY



LIGHT TANK
TK, TKF, OR TKS
(EX-POLISH)

1. Crew: Two (driver and gunner).
2. Armament: Two 7.9-mm Hotchkiss machine gun (1 spare).
3. Ammunition: 2,360 rounds.
4. Armor, thickness:
   Upper structure: 0.15 inch to 0.39 inch.
   Front: 0.15 inch to 0.39 inch.
   Sides: 0.15 inch to 0.39 inch.
5. Turret: None.
6. Vision: Periscope attachment.
7. Ventilation:
8. Communications: Flag.
9. Dimensions:
   Length: 8 feet 6 inches.
   Width: 6 feet.
   Height: 4 feet 6 inches.
10. Weight: 2.5 tons.
11. Motor:
    Type: 4-cylinder Ford or 6-cylinder Fiat.
    Cooling system: Water.
    Horsepower: 24 horsepower, 4-cylinder Ford; 45 horsepower, 6-cylinder Fiat.
    Horsepower per ton: 9.6 or 18, depending on motor installed.
12. Drive:
    Brake—front sprocket.
13. Speed:
    Cross country: 25 miles per hour.
    Road: 31¼ miles per hour.
    Maximum:
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill: 85 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Two pairs of bogies, Carden-Lloyd.
19. Performance:
    Ground clearance: 1 foot.
    Climbs 45° slopes.
    Negotiates vertical obstacle 1 foot 4 inches high.
    Crosses trenches 5 feet wide.
    Fords streams 1 foot 8 inches deep.
20. Remarks: May be equipped with 20-mm machine guns and used as anti-tank machine-gun carriers. Poland had 750 of these tanks.

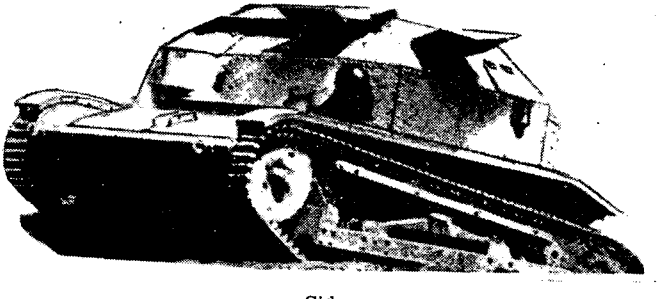
GERMAN
ARMY

LIGHT TANK
TK, TKF, OR TKS
(EX-POLISH)

Top

Front

Rear



Side

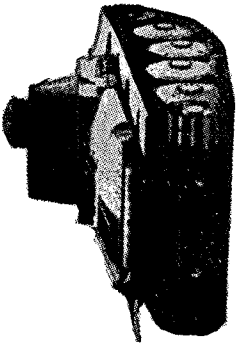
GERMAN
ARMY

LIGHT TANK
TN HP
(EX-CZECH)

1. Crew: Three or four (driver, commander, two gunners).
2. Armament: One 37-mm gun; one machine gun mounted coaxially in turret; one machine gun on hull at driver's left.
3. Ammunition: 90 rounds for 37-mm; 2,700 rounds for machine gun.
4. Armor thickness: Thickest known now 1 inch, being raised to 2 inches.
   Upper structure:
   Front:
   Sides:
5. Turret: Round turret surmounted by round observtion cupola on righthand side.
6. Vision:
7. Ventilation:
8. Communications: Radio, flag, and lamp.
9. Dimensions:
   Length: 15 feet, 2 inches.
   Width: 6 feet, 9 inches.
   Height: 7 feet, 4 inches.
10. Weight: 8.5 tons (being raised to 12.5 tons).
11. Motor:
    Type: 6-cylinder.
    Cooling system: Water.
    Horsepower: 125.
    Horsepower per ton: 14.1 to 10.4.
12. Drive: Front sprocket.
13. Speed:
    Cross country:
    Road: 26 miles per hour.
    Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill: 125 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: 4 large bogie wheels, 3 track support wheels, low rear idler wheel.
19. Performance:
    Ground clearance: 1 foot, 4 inches.
    Climbs 40° to 45° slopes.
    Negotiates vertical obstacle 2 feet, 8 inches high.
    Crosses trenches 6 feet, 5 inches wide.
    Fords streams _____ deep.
20. Remarks: A large number have been delivered to Germany. With increased armor may be used as an infantry tank.

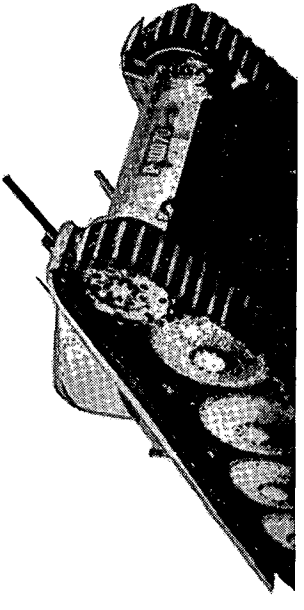
GERMAN
ARMY

LIGHT TANK
TN HP
(EX-CZECH



Rear

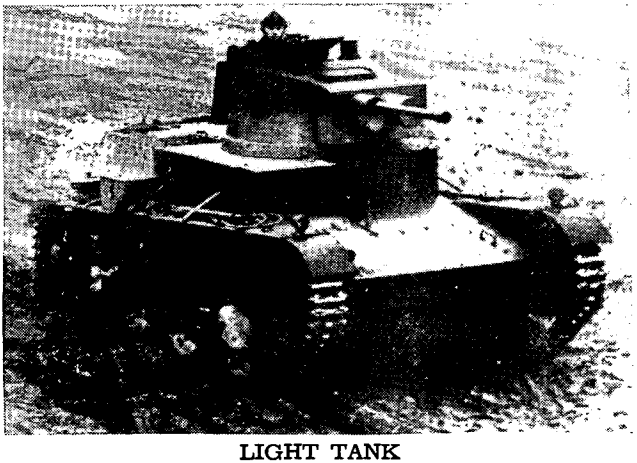
Top



Front

Side

GERMAN
ARMY

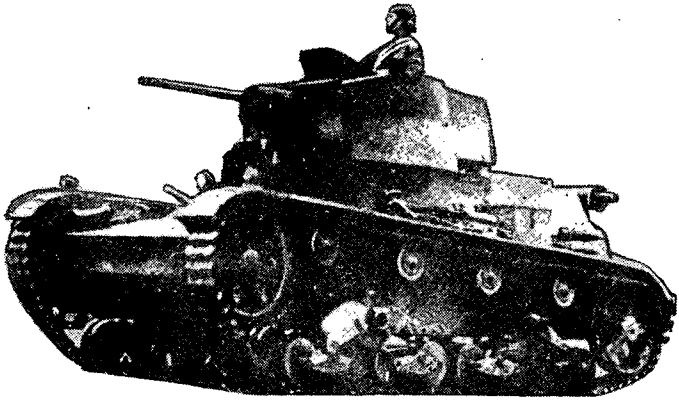


LIGHT TANK
7 TP
(EX POLISH)

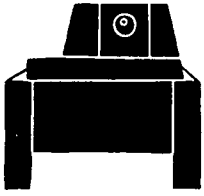
1. Crew: Three (driver, gunner, and commander—wireless operator).
2. Armament: One 37-mm Bofors; one light machine gun coaxially mounted.
3. Ammunition: 80 rounds for gun; 4,000 rounds for machine gun.
4. Armor, thickness: Thickest known 0.7 inch. May be increased to 0.8 inch to 1 inch.
   Upper structure:
   Front:
   Sides:
5. Turret: High turret with long-barreled gun in round mounting.
6. Vision:
7. Ventilation:
8. Communications: Radio.
9. Dimensions:
   Length: 15 feet.
   Width: 7 feet 11 inches.
   Height: 7 feet 2 inches.
10. Weight: 9.5 tons.
11. Motor:
    Type: 6-cylinder Diesel.
    Cooling system: Water.
    Horsepower: 100.
    Horsepower per ton: 10.6.
12. Drive: Front sprocket.
13. Speed:
    Cross country:
    Road: 22 miles per hour.
    Maximum:
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill: 90 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: 8 small bogie wheels; high front driving sprocket; spoked rear idler wheel; four-track support wheels.
19. Performance:
    Ground clearance: 1 foot 3 inches.
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 6 inches high.
    Crosses trenches 6 feet wide.
    Fords streams 3 feet deep.
20. Remarks:

GERMAN
ARMY

LIGHT TANK
7 TP
(EX POLISH)

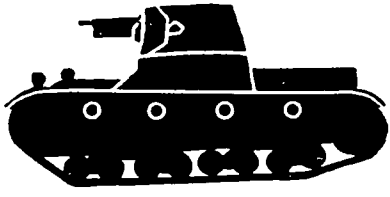


View



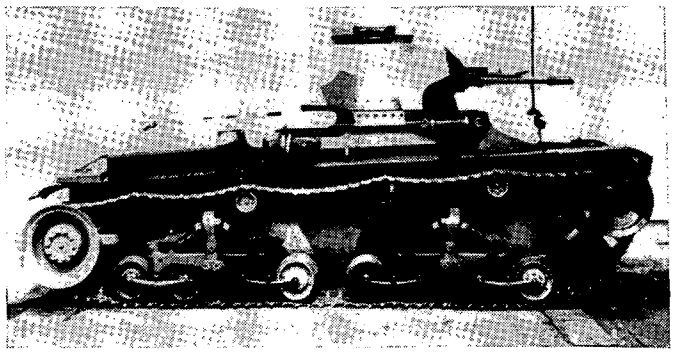
Front

Rear



Side

GERMAN
ARMY



LIGHT TANK
LT 35 S2a
(EX-CZECH)

1. Crew: Three (driver, gunner, radio operator-commander).
2. Armament: One 37-mm gun, two light machine guns (1 coaxially mounted, 1 on ball-mounting forward in hull).
3. Ammunition:
4. Armor, thickness: Thickest known, 0.95 inch.
   Upper structure:
   Front:
   Sides:
5. Turret: Oblong face, cylindrical back; observation cupola on top left side; 37-mm and machine gun side by side in oblong face.
6. Vision:
7. Ventilation:
8. Communications: Radio and flag.
9. Dimensions:
   Length: 16 feet 2 inches.
   Width: 7 feet 6 inches.
   Height: 7 feet 10 inches.
10. Weight: 11.5 tons.
11. Motor:
    Type: 6-cylinder.
    Cooling system:
    Horsepower: 110.
    Horsepower per ton: 9.6.
12. Drive: Rear sprocket.
13. Speed:
    Cross country:
    Road: 16 miles per hour.
    Maximum:
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill: 70 miles.
16. Gear speeds and ratios.
17. Turning radius:
18. Suspension, type: Eight small bogie wheels. One independent; 2 bogies and twin bogie wheel on rocker with leaf springing. Four track support wheels. Both idler wheel and rear driving sprocket have large outside rim which overlaps the edge of the track.
19. Performance:
    Ground clearance:
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 7 inches high.
    Crosses trenches 6 feet 6 inches wide.
    Fords streams 2 feet 7 inches deep.
20. Remarks:

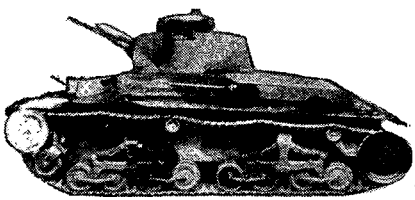
GERMAN
ARMY

LIGHT TANK
LT 35 S2a
(EX-CZECH

Top

Front

Rear



Side

GERMAN ARMY

LIGHT TANK TNHS 38

1. Crew:
2. Armament: 37-mm guns.
3. Ammunition:
4. Armor, thickness:
   - Upper structure:
   - Front:
   - Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   - Length:
   - Width:
   - Height:
10. Weight: 8 tons.
11. Motor:
    - Type:
    - Cooling system:
    - Horsepower:
    - Horsepower per ton:
12. Drive:
13. Speed:
    - Cross country:
    - Road:
    - Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    - Ground clearance:
    - Climbs _____° slopes.
    - Negotiates vertical obstacle _____ high.
    - Crosses trenches _____ wide.
    - Fords streams _____ deep.
20. Remarks: It is reported that this tank can be transported in modified Ju 90 and Focke-Wulf 200 airplanes.

GERMAN
ARMY

LIGHT TANK
TNHS 38

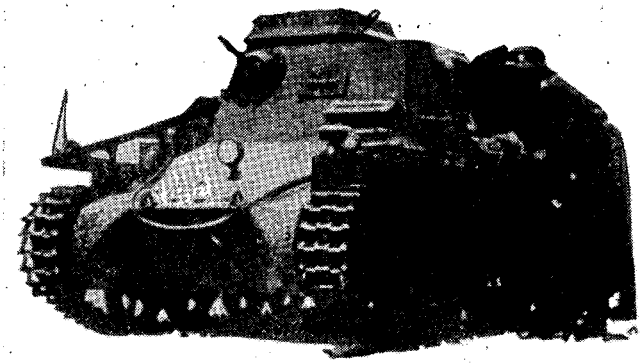
Top

Front

Rear

Side

GERMAN
ARMY



LIGHT TANK
LIGHT COMMANDERS TANK

1. Crew: Three (driver, gunner, and commander).
2. Armament: One 7- to 9-mm machine gun in ball mounting.
3. Ammunition:
4. Armor, thickness: 0.55-inch.
   Upper structure:
   Front:
   Sides:
5. Turret: None. Hull built up to rigid square top with boxlike cupola.
6. Vision:
7. Ventilation:
8. Communications: Radio.
9. Dimensions:
   Length: 13 feet.
   Width: 6 feet 5 inches.
   Height: 5 feet 8 inches.
10. Weight: 5.7 tons.
11. Motor:
    Type: V–8.
    Cooling system: Air.
    Horsepower: 90 to 100.
    Horsepower per ton: 15.8.
12. Drive:
13. Speed:
    Cross country:
    Road: 32 miles per hour.
    Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill: 95 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Five spoked bogie wheels, 1 independently sprung and the last four connected by an outside girder bearer. Rear idler wheels almost on the ground. Four track support wheels.
19. Performance:
    Ground clearance: 1 foot.
    Climbs 45° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches 4 feet 7 inches wide.
    Fords streams 2 feet deep.
20. Remarks: Armored office with fixed square turret.

GERMAN
ARMY

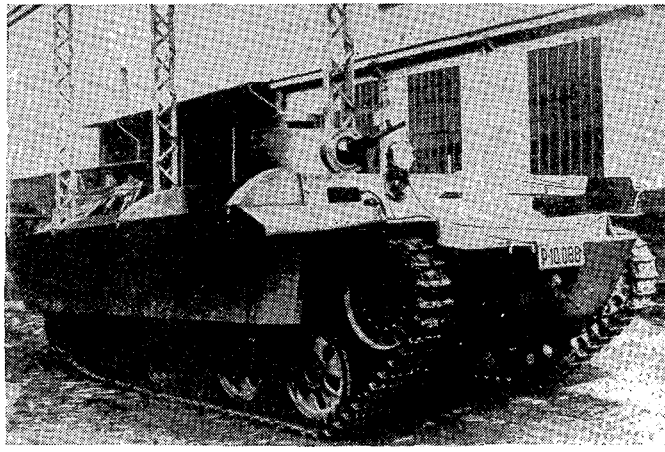
LIGHT TANK
LIGHT COMMANDERS TANK

Top

Front

Rear

Side



LIGHT AMPHIBIAN
F 4 HE
(EX-CZECH)

1. Crew: Three (gunner, driver, and commander).
2. Armament: One or two light machine guns.
3. Ammunition: 4,000 rounds.
4. Armor, thickness:
   Upper structure:
   Front:
   Sides:
5. Turret: Small round turret with light machine gun on ball mounting and round look-out cupola.
6. Vision:
7. Ventilation:
8. Communications: Radio, flag, and lamp.
9. Dimensions:
   Length: 17 feet 6 inches.
   Width: 7 feet 7 inches.
   Height: 6 feet 11 inches.
10. Weight: 6.2 tons.
11. Motor:
    Type: 4-cylinder.
    Cooling system: Water.
    Horsepower: 120.
    Horsepower per ton: 19.4.
12. Drive: Front sprocket.
13. Speed:
    Cross country:
    Road: 28 miles per hour.
    Maximum:
    In water: 3½ miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill: 90 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Four large bogie wheels. High front idler wheel. Float which comes down as far as the top of the bogie wheels. The vehicle has twin screws at the rear.
19. Performance:
    Ground clearance: 1 foot.
    Climbs 35° to 45° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches 7 feet 1 inch wide.
    Fords streams _____ deep.
    Amphibian.
20. Remarks: One hundred of these known to exist. An improved model may have been produced.

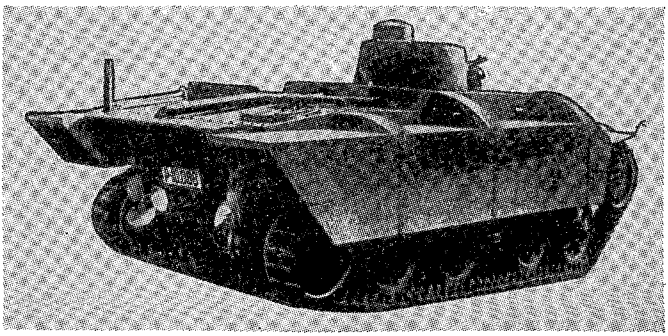
GERMAN
ARMY

LIGHT AMPHIBIAN
F 4 HE
(EX-CZECH)

Top

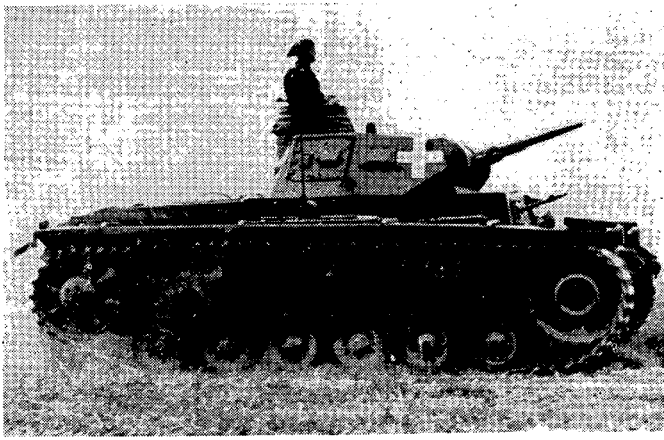
Front

Rear



Side

GERMAN
ARMY

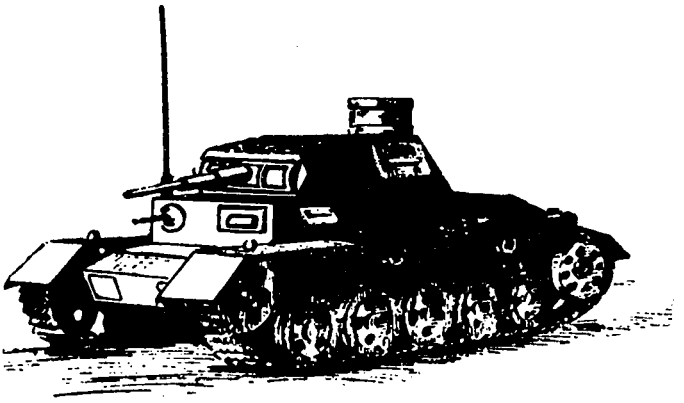


MEDIUM TANK
PZ KW III (PANZER KRAFTWAGEN III)
(MAYBACH TYPE)

1. Crew: Three or four (driver and two gunners).
2. Armament: One 37-mm gun and one machine gun coaxially mounted; one machine gun on hull.
3. Ammunition:
4. Armor, thickness: Thickest known, 1 inch to 1.18 inches.
   Upper structure:
   Front:
   Sides:
5. Turret: Similar to PZ KW II with small, round conning tower.
6. Vision:
7. Ventilation:
8. Communications: Radio.
9. Dimensions:
   Length: 16 feet 5 inches.
   Width: 7 feet 6 inches.
   Height: 7 feet 6 inches.
10. Weight: 18 tons; 16 tons metric.
11. Motor:
    Type:
    Cooling system:
    Horsepower: 300.
    Horsepower per ton: 16.7.
12. Drive: Front sprocket.
13. Speed:
    Cross country:
    Road: 28 miles per hour.
    Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
    (1) Six small independent bogie wheels with heavy rubber tires.
    (2) Eight small bogie wheels.
    (3) Five large bogie wheels, Christie type; three track support wheels.
19. Performance:
    Ground clearance:
    Climbs _____° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams 2 feet 11 inches deep.
20. Remarks:

GERMAN ARMY

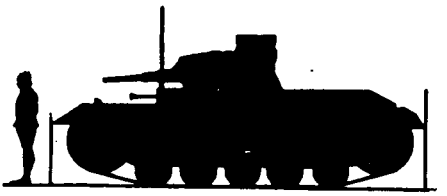
MEDIUM TANK
PZ KW III (PANZER KRAFTWAGEN III) (MAYBACH TYPE)



View

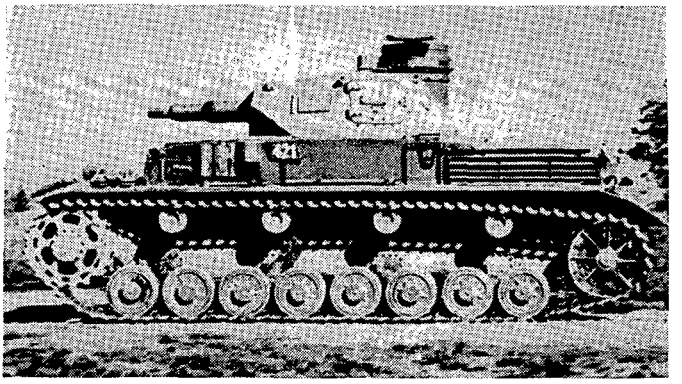
Front

Rear



Side

GERMAN
ARMY



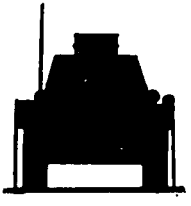
MEDIUM TANK
PZ KW IV (PANZER KRAFTWAGEN IV)

1. Crew: Four or five (driver, hull gunner, wireless operator, commander-gunner).
2. Armament: One 75-mm gun; one machine gun coaxially mounted; one machine gun in ball mounting.
3. Ammunition:
4. Armor, thickness: Thickest known 1.18-inch to 1.57-inch.
   Upper structure:
   Front:
   Sides:
5. Turret: Identical with that of PZ KW III.
6. Vision:
7. Ventilation:
8. Communications: Radio.
9. Dimensions:
   Length: 17 feet (approximately).
   Width: 7 feet 3 inches.
   Height: 8 feet 6 inches.
10. Weight: 22 tons.
11. Motor:
    Type:
    Cooling system:
    Horsepower: 350.
    Horsepower per ton: 15.9.
12. Drive: Front sprocket.
13. Speed:
    Cross country:
    Road: 31 miles per hour.
    Maximum:
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Caterpillar eight independent rollers; eight small bogie wheels; four track support wheels.
19. Performance:
    Ground clearance:
    Climbs ------° slopes.
    Negotiates vertical obstacle ------ high.
    Crosses trenches ------ wide.
    Fords streams 3 feet 6 inches deep.
20. Remarks: The armor plating on this type of tank has been increased recently, which should impair its performance. Horizontal engine with louvres at rear at each side of built-up hull.

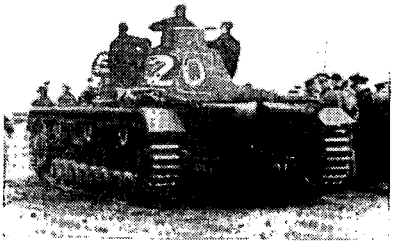
GERMAN ARMY

MEDIUM TANK
PZ KW IV (PANZER KRAFTWAGEN IV)

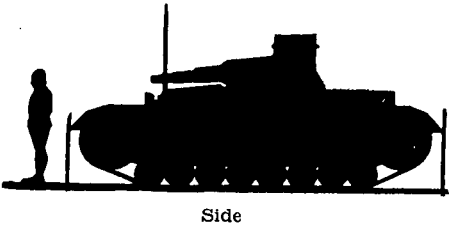
Top



Front



Rear



Side

GERMAN
ARMY

MEDIUM TANK
CZD–V8–H
(EX–CZECH)

1. Crew: Three or four (driver, commander, one or two gunners).
2. Armament: One 47-mm gun and one machine gun coaxially mounted in turret; one machine gun in hull, fore.
3. Ammunition: 90 rounds for 47-mm gun; 3,000 rounds for small arms.
4. Armor, thickness: Thickest known, 1.25 inch.
   Upper structure:
   Front:
   Sides:
5. Turret: The turret is streamlined tapering toward the rear, surmounted by cupola on left hand side. Entrance to turret in hull to left behind turret.
6. Vision:
7. Ventilation:
8. Communications: Radio and lamp.
9. Dimensions:
   Length: 17 feet 6 inches.
   Width: 7 feet 6 inches.
   Height: 7 feet 8 inches.
10. Weight: 16.5 tons.
11. Motor:
    Type: V–8.
    Cooling system:
    Horsepower: 245.
    Horsepower per ton: 14.8.
12. Drive: Rear sprocket.
13. Speed:
    Cross country:
    Road: 27 miles per hour.
    Maximum:
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill: 96 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Nine bogie wheels; independent bogie; four pairs of bogies each with elliptical leaf springing connected by outside bearer girder.
19. Performance:
    Ground clearance: 1 foot 6 inches.
    Climbs 41° slopes.
    Negotiates vertical obstacle 3 feet 3 inches high.
    Crosses trenches 7 feet 6 inches wide.
    Fords streams 3 feet 3 inches deep.
20. Remarks:

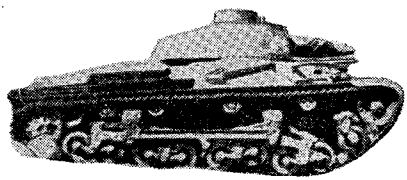
GERMAN
ARMY

MEDIUM TANK
CZD–V8–H
(EX-CZECH)

Top

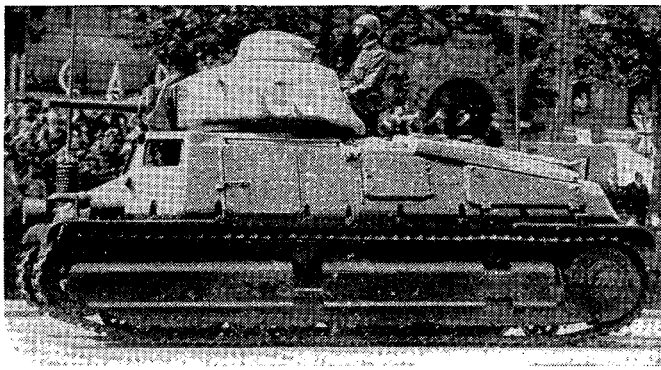
Front

Rear



Side

GERMAN
ARMY



MEDIUM TANK
(FRENCH SOMUA S 1935)

1. Crew: Three (driver, gunner, commander).
2. Armament: One 47-mm gun; one light machine gun.
3. Ammunition: 120 rounds for gun: 5,000 rounds for light machine gun.
4. Armor, thickness: 1½-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Radio; flag.
9. Dimensions:
   Length: 17 feet 6 inches.
   Width: 6 feet 8 inches.
   Height: 8 feet 10 inches.
10. Weight: 18 tons.
11. Motor:
    Type: V-8.
    Cooling system: Water.
    Horsepower: 190.
    Horsepower per ton:
12. Drive: Rear sprocket.
13. Speed:
    Cross country:
    Road: 29 miles per hour.
    Maximum:
14. Radius of action: 140 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: nine bogie wheels; four bogies with leaf springing; one independent bogie wheel; protected by skirting.
19. Performance:
    Ground clearance: 1 foot 4 inches.
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 11 inches high.
    Crosses trenches 7 feet 10 inches wide.
    Fords streams 3 feet 3 inches deep.
20. Remarks: Considerable numbers were in existence.

GERMAN
ARMY

MEDIUM TANK
(FRENCH SOMUA S 1935)

Top

Front

Rear

Side

GERMAN
ARMY

MEDIUM TANK
(FRENCH SOMUA S AU 40)

1. Crew: Three (four?) (driver, commander, gunner (loader?)).
2. Armament: one 75-mm gun.
3. Ammunition:
4. Armor, thickness: 1½-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Radio; flag.
9. Dimensions:
   Length: 19 feet 5 inches.
   Width: 6 feet 11 inches.
   Height: 8 feet 10 inches.
10. Weight: 21.5 tons.
11. Motor:
    Type: V–8.
    Cooling system: Water.
    Horsepower: 190.
    Horsepower per ton:
12. Drive: Rear sprocket.
13. Speed:
    Cross country:
    Road: 20 miles per hour.
    Maximum:
14. Radius of action: 140 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: (Same as Serial 8.)
19. Performance:
    Ground clearance: 1 foot 4 inches.
    Climbs ———° slopes.
    Negotiates vertical obstacle 2 feet 11 inches high.
    Crosses trenches 7 feet 10 inches wide.
    Fords streams 3 feet 3 inches deep.
20. Remarks: Thirty-two were in existence. Long-barrelled 75-mm, gun was mounted in the hull. Was to be used as armored artillery.

GERMAN ARMY

MEDIUM TANK
(FRENCH SOMUA S AU 40)

Top

Front

Rear

Side

GERMAN
ARMY

HEAVY TANK
PZ KW V/VI (PANZER KRAFTWAGEN V/VI)

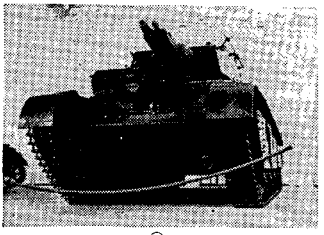
1. Crew: Seven or eight (driver, commander, radio operator, three gunners, loader).
2. Armament: One 75-mm or one 105-mm gun coaxially mounted; one 47-mm or one 37-mm gun; three light machine guns.
3. Ammunition:
4. Armor, thickness: Thickest known, 1.96 inch.
   Upper structure:
   Front:
   Sides:
5. Turret: Round at rear, surmounted by observation cupola to the rear. Two small auxiliary turrets, with one machine gun each, one forward to right of driver, one behind main turret on left.
6. Vision:
7. Ventilation:
8. Communications: Radio.
9. Dimensions:
   Length: 25 to 26 feet.
   Width: 9 feet.
   Height: 10 to 11 feet.
10. Weight: 32 to 35 tons.
11. Motor:
    Type:
    Cooling system:
    Horsepower: 350.
    Horsepower per ton: 10.9.
12. Drive: Rear sprocket.
13. Speed:
    Cross country:
    Road: 20 miles per hour.
    Maximum:
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill: 75 to 85 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Almost covered by armored skirting. Eleven small bogie wheels. One independent bogie wheel. Five pairs of bogies, each pair sprung on knee action system.
19. Performance:
    Ground clearance:
    Climbs ------° slopes.
    Negotiates vertical obstacle 4 feet 7 inches high.
    Crosses trenches 11 feet six inches wide.
    Fords streams 3 feet 6 inches deep.
20. Remarks: Massive gun mounting with either a 105-mm gun mounted below a 37-mm gun or a 75-mm gun mounted at side of a 47-mm gun.

GERMAN
ARMY

HEAVY TANK

PZ KW V/VI (PANZER KRAFTWAGEN V/VI)

Top



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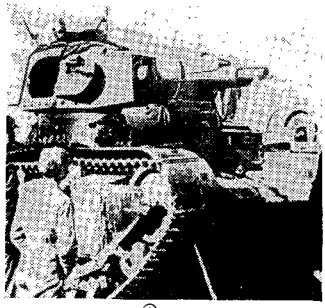
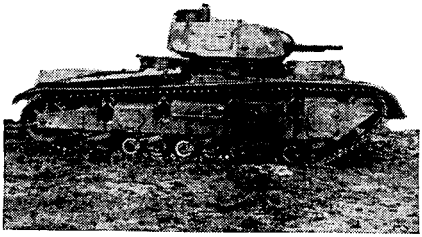


②

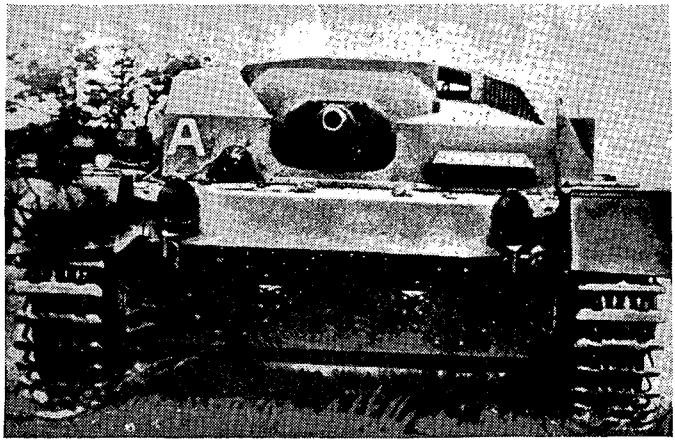
Front

Rear



Side

GERMAN ARMY



STURMGESCHUTZ

1. Crew:
2. Armament:
3. Ammunition:
4. Armor, thickness:
   - Upper structure:
   - Front:
   - Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   - Length:
   - Width:
   - Height:
10. Weight.
11. Motor:
    - Type:
    - Cooling system:
    - Horsepower:
    - Horsepower per ton:
12. Drive:
13. Speed:
    - Cross country:
    - Road:
    - Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    - Ground clearance:
    - Climbs _____° slopes.
    - Negotiates vertical obstacle _____ high.
    - Crosses trenches _____ wide.
    - Fords streams _____ deep.
20. Remarks:

GERMAN
ARMY

STURMGESCHUTZ

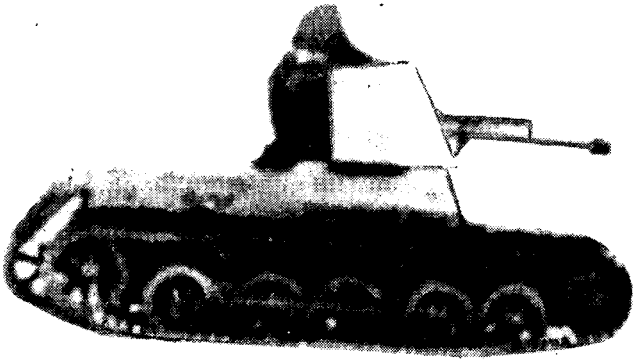
Top

Front

Rear

Side

GERMAN
ARMY



47-MM ANTITANK GUN ON SELF-PROPELLED MOUNT

1. Crew: Three.
2. Armament: One 47-mm gun.
3. Ammunition: 100 rounds.
4. Armor, thickness: ⅜ - inch welded.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision: Eye slits, telescopic sight on 47-mm gun.
7. Ventilation:
8. Communications: Radio.
9. Dimensions:
   Length: 15 feet.
   Width: 6 feet.
   Height: 4-foot body; top of shield 8 feet.
10. Weight: 5 tons.
11. Motor:
    Type: V–8.
    Cooling system: Air.
    Horsepower: 90 to 100.
    Horsepower per ton:
12. Drive: Front sprocket.
13. Speed:
    Cross country: 12 miles per hour.
    Road: 32 miles per hour.
    Maximum:
14. Cruising radius, at ------ speed ------ miles.
15. Operating distance without refill: 95 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance:
    Climbs ------° slopes.
    Negotiates vertical obstacle 10 inches high.
    Crosses trenches 5 feet wide.
    Fords streams ------ deep.
20. Remarks: Similar to MI Light Tank.

GERMAN
ARMY

47-MM ANTITANK GUN ON SELF-PROPELLED MOUNT

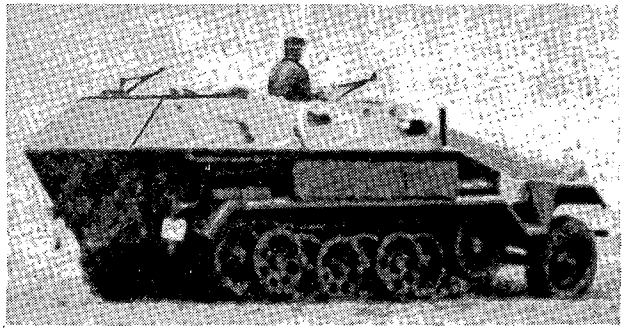
Top

Front

Rear

Side

GERMAN
ARMY



PERSONNEL CARRIER

(Personnel carrier; commanders' car; antitank gun tractor)

1. Crew: One driver, 1 assistant driver, 10 passengers.
2. Armament: One machine gun each end of body for antiaircraft purposes.
3. Ammunition: 44 boxes.
4. Armor, thickness: 0.1 inch.
   Upper structure: very thin.
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length:
   Width:
   Height:
10. Weight:
11. Motor:
    Type:
    Cooling system:
    Horsepower:
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance:
    Climbs _____° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams _____ deep.
20. Remarks:

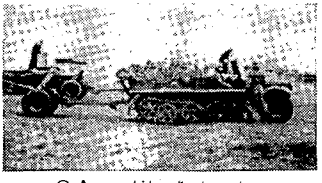
GERMAN ARMY

PERSONNEL CARRIER
(Personnel carrier; commanders' car; antitank gun tractor)

Top

Front

Rear



① As antitank tractor.

② Commanders' car.

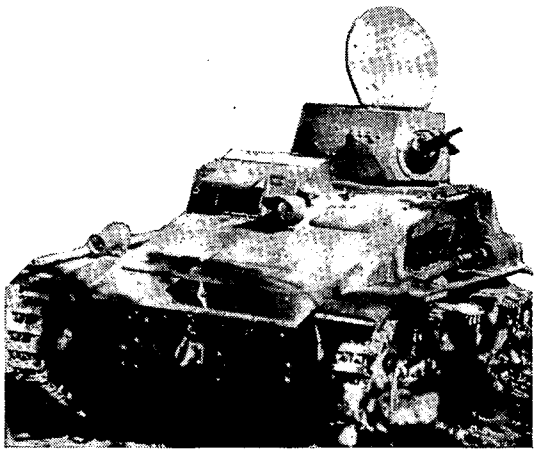
Side

US ARMY MILITARY HISTORY INSTITUTE
MCMLXVII

Section III

ARMORED VEHICLES OF THE JAPANESE ARMY

JAPANESE ARMY

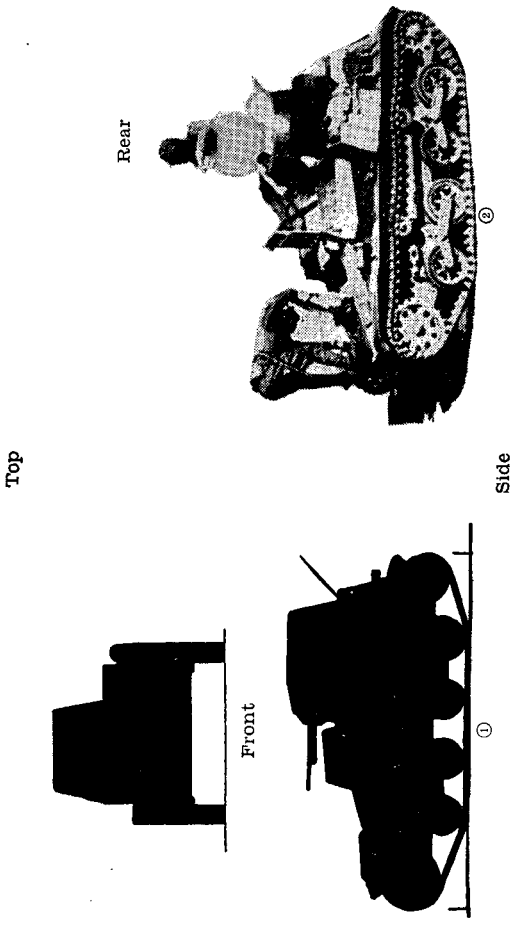


TANKETTE, ISHIKAWAJIMA, M 2592 (1932)

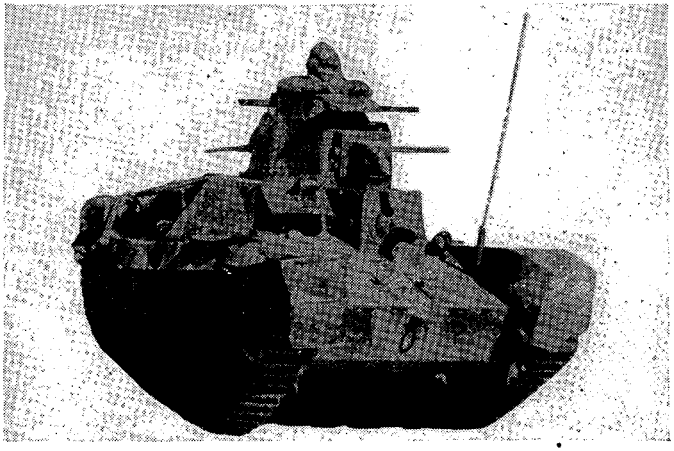
1. Crew: Two (one driver and one gunner).
2. Armament: One machine gun in turret.
3. Ammunition:
4. Armor, thickness:
   - Upper structure: 0.31 to 0.55 inches.
   - Front:
   - Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Flag.
9. Dimensions:
   - Length: 10 feet 2 inches.
   - Width: 5 feet 9 inches.
   - Height: 5 feet 4 inches.
10. Weight: 3 tons.
11. Motor:
    - Type: 4-cylinder.
    - Cooling system: Air.
    - Horsepower: 45.
    - Horsepower per ton: 15.
12. Drive: Front sprocket.
13. Speed:
    - Cross country:
    - Road:
    - Maximum: 30 miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: four bogie wheels; two bogies Carden-Lloyd system.
19. Performance:
    - Ground clearance: 1 foot 1 inch.
    - Climbs _____° slopes.
    - Negotiates vertical obstacle _____ high.
    - Crosses trenches _____ wide.
    - Fords streams _____ deep.
20. Remarks: Known as light-armored vehicle. Used with armored trailer for supply and intercommunication. Based on Carden-Lloyd.

JAPANESE
ARMY

TANKETTE
ISHIKAWAJIMA
M 2592 (1932)



JAPANESE
ARMY



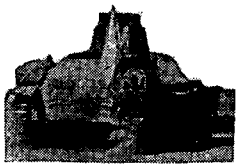
TANKETTE, M 2595 (1935)

1. Crew: Two (one driver and one gunner).
2. Armament: One 37-mm gun in turret and two machine guns in hull fore.
3. Ammunition:
4. Armor, thickness: 0.47 inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Flag.
9. Dimensions:
   Length: 13 feet.
   Width: 4 feet 9 inches.
   Height: 6 feet 5 inches.
10. Weight: 4 tons.
11. Motor:
    Type:
    Cooling system: Air.
    Horsepower: 70.
    Horsepower per ton: 17.5.
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum: 22 miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Four bogie wheels; 2 bogies.
19. Performance:
    Ground clearance:
    Climbs _____° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams _____ deep.
20. Remarks:

JAPANESE
ARMY

TANKETTE
M 2595 (1935)

Top



Front

Rear

Side

JAPANESE
ARMY

TANKETTE, ISHIKAWAJIMA, M 2598 (1938)

1. Crew: Three (one driver, two gunners).
2. Armament: One machine gun in turret and one machine gun in hull fore.
3. Ammunition: 5,000 rounds small arms.
4. Armor, thickness: 0.55 inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 10 feet 3 inches.
   Width: 5 feet 9 inches.
   Height: 5 feet 4 inches.
10. Weight: 3 tons.
11. Motor:
    Type:
    Cooling system: water and air.
    Horsepower: 55.
    Horsepower per ton: 18.3.
12. Drive: Front sprocket.
13. Speed:
    Cross country.
    Road:
    Maximum: 33 miles per hour.
14. Cruising radius, at _____ speed 61 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Four bogie wheels; two bogies.
19. Performance:
    Ground clearance:
    Climbs 34° slopes.
    Negotiates vertical obstacle 2 feet 1 inch high.
    Crosses trenches 4 feet 9 inches wide.
    Fords streams 2 feet 9 inches deep.
20. Remarks: In use in Manchuria.

JAPANESE
ARMY

TANKETTE
ISHIKAWAJIMA
M 2598 (1938)

Top

Front

Rear

Side

JAPANESE
ARMY

LIGHT TANK, M 2592 (1932)

1. Crew: Three (one driver, two gunners).
2. Armament: One machine gun in turret; one 13-mm machine gun in hull fore.
3. Ammunition:
4. Armor, thickness: 0.31- to 0.43-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Flag.
9. Dimensions:
   Length: 12 feet 10 inches.
   Width: 5 feet 4 inches.
   Height: 6 feet 1 inch.
10. Weight: 5 tons.
11. Motor:
    Type: 6-cylinder Mitsubishi.
    Cooling system: Air.
    Horsepower: 85.
    Horsepower per ton: 17.
12. Drive: Front sprocket.
13. Speed:
    Cross country.
    Road:
    Maximum: 28 miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Six bogie wheels; 3 bogies.
19. Performance:
    Ground clearance: 1 foot.
    Climbs 34° slopes.
    Negotiates vertical obstacle 1 foot 8 inches high.
    Crosses trenches 4 feet 6 inches wide.
    Fords streams 2 feet 6 inches deep.
20. Remarks: Known as heavy armored vehicle.

JAPANESE
ARMY

LIGHT TANK
M 2592 (1932)

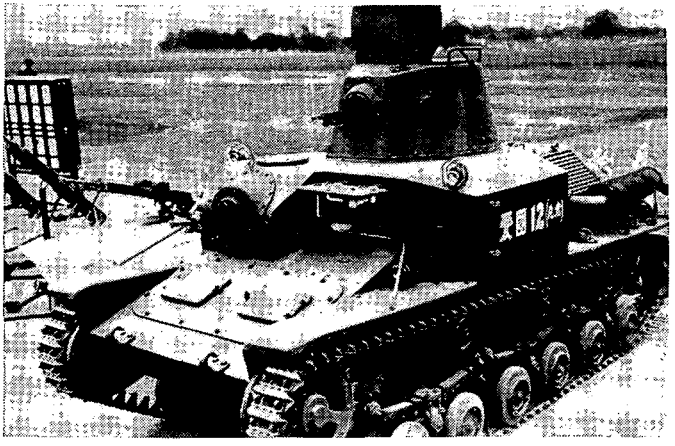
Top

Front

Rear

Side

JAPANESE ARMY

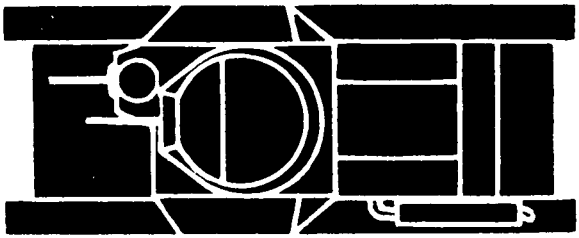


LIGHT TANK, M 2593 (1933)

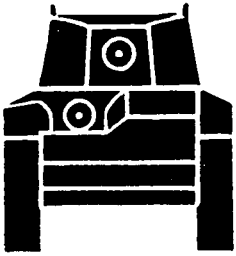
1. Crew: Three (one driver and two gunners).
2. Armament: One machine gun in turret, one machine gun in hull fore.
3. Ammunition:
4. Armor, thickness: 0.86-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Flag.
9. Dimensions:
   Length: 14 feet 8 inches.
   Width: 5 feet 11 inches.
   Height: 6 feet.
10. Weight: 7 tons.
11. Motor:
    Type: 6-cylinder Mitsubishi.
    Cooling system: Air.
    Horsepower: 85.
    Horsepower per ton: 12.1.
12. Drive: Front sprocket.
13. Speed:
    Cross country:
    Road:
    Maximum: 28 miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Six bogie wheels; three bogies.
19. Performance:
    Ground clearance: 1 foot 3 inches.
    Climbs 42° slopes.
    Negotiates vertical obstacle 1 foot 8 inches high.
    Crosses trenches 5 feet 8 inches wide.
    Fords streams 2 feet 8 inches deep.
20. Remarks: Trials have been made with experimental amphibious model of this tank.

JAPANESE
ARMY

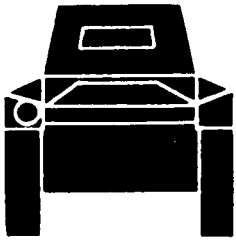
LIGHT TANK
M 2593 (1933)



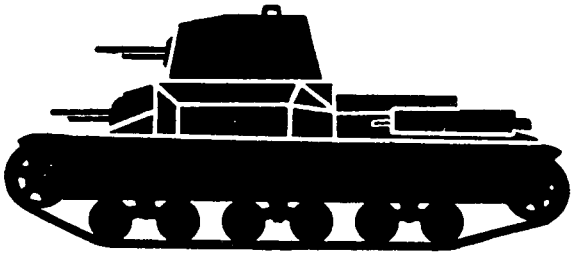
Top



Front



Rear



Side

JAPANESE
ARMY

LIGHT TANK, M 2595 (1935)

1. Crew: Three (one driver and two gunners).
2. Armament: One 47-mm gun in turret; two 7.7-mm machine guns in hull fore.
3. Ammunition: 120 rounds 47-mm; 1,350 machine gun.
4. Armor, thickness: 0.47 inch.
   Upper structure: 0.47 inch.
   Front: 0.47 inch.
   Sides: 0.39 to 0.47 inch.
5. Turret: Single.
6. Vision: Telescopic sights and glass protected slits.
7. Ventilation: Louvres.
8. Communications: Radio.
9. Dimensions:
   Length: 14 feet 9 inches.
   Width: 6 feet 6 inches.
   Height: 6 feet 6 inches.
10. Weight: 7.7 tons.
11. Motor:
    Type:
    Cooling system: Air.
    Horsepower: 110 at 1,400 revolutions per minute.
    Horsepower per ton: 14.2.
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum: 22 miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill: 120 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Eight bogie wheels; four bogies.
19. Performance:
    Ground clearance: 1.2 feet.
    Climbs 40° slopes.
    Negotiates vertical obstacle 2.6 feet high.
    Crosses trenches _____ wide.
    Fords streams 3.2 feet deep.
20. Remarks:

JAPANESE
ARMY

LIGHT TANK
M 2595 (1935)

Top

Front

Rear

Side

JAPANESE
ARMY

LIGHT TANK, M 2599 (1939)

1. Crew: Three (one driver and two gunners).
2. Armament: One 37-mm gun and one machine gun.
3. Ammunition: 2,500 rounds small arms and 250 rounds.
4. Armor, thickness: 0.37-inch.
   Upper structure: 0.63-inch.
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 16 feet 6 inches.
   Width: 5 feet 8 inches.
   Height: 7 feet 4 inches.
10. Weight: 7 tons.
11. Motor: 4-cylinder.
    Type: Diesel.
    Cooling system:
    Horsepower: 45.
    Horsepower per ton: 6.5.
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum: 12½ miles per hour.
14. Cruising radius, at _____ speed 110 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Nine bogie wheels; four bogies; one independent bogie wheel.
19. Performance:
    Ground clearance:
    Climbs 38° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches 6 feet 4 inches wide.
    Fords streams 1 foot 8 inches deep.
20. Remarks:

JAPANESE ARMY — LIGHT TANK M2597 (1939)

Statistics and Reference Div

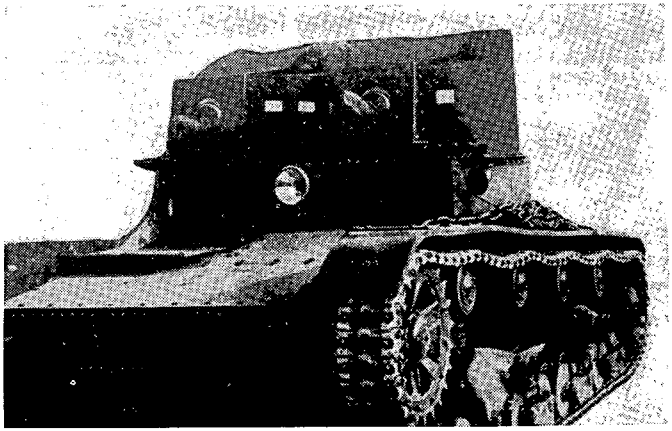
Top

Front

Rear

Side

JAPANESE
ARMY



LIGHT TANK
COPY OF VICKERS-ARMSTRONG 6-TON
ALTERNATIVE A (1936)

1. Crew: Three.
2. Armament: Two machine guns.
3. Ammunition:
4. Armor, thickness: 0.51-inch to 0.2-inch.
   Upper structure:
   Front:
   Sides:
5. Turret: Double.
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 15 feet ½ inch.
   Width: 7 feet 11½ inches.
   Height: 6 feet 9⅞ inches.
10. Weight: 6.75 net; loaded, 8.1 tons.
11. Motor:
    Type:
    Cooling system:
    Horsepower:
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country:
    Road: 22 miles per hour.
    Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill: 96 miles.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Leaf spring; pivoted bogies; rubber-tired rollers.
19. Performance:
    Ground clearance:
    Climbs 45° slopes.
    Negotiates vertical obstacle 2 feet 5 inches high.
    Crosses trenches 6 feet wide.
    Fords streams 3 feet deep.
20. Remarks:

JAPANESE
ARMY

LIGHT TANK
COPY OF VICKERS-ARMSTRONG 6-TON ALTERNATIVE A (1936)

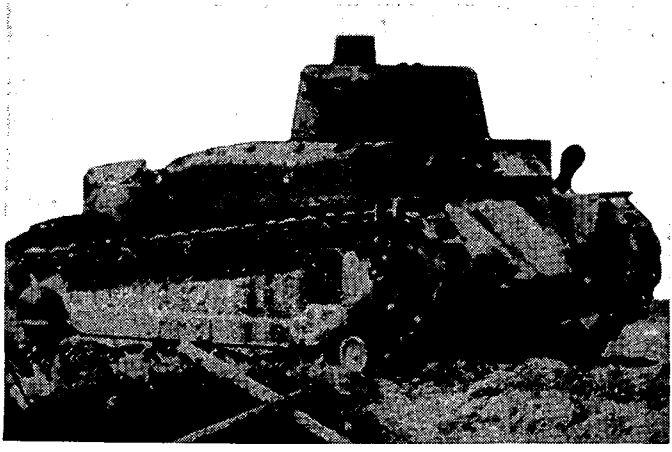
Top

Front

Rear

Side

JAPANESE
ARMY

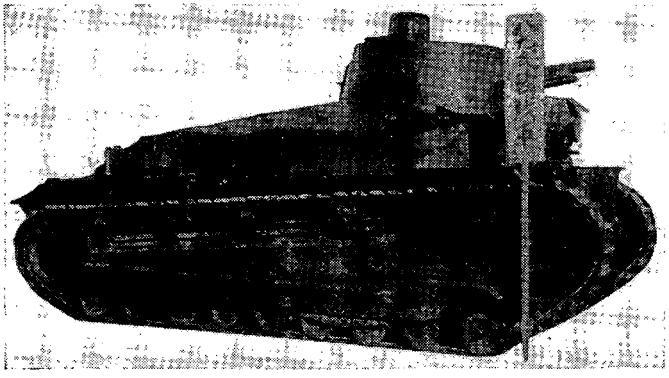


MEDIUM TANK, M 2589 (1929)

1. Crew: Five (one driver, one commander, and three gunners).
2. Armament: One 37-mm gun in turret, one machine gun (rear), one machine gun in hull fore.
3. Ammunition: 4,000 rounds small-arms and 200 rounds 37-mm.
4. Armor, thickness: 0.43-inch to 0.67-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Flag.
9. Dimensions:
   Length: 17 feet 6 inches.
   Width: 8 feet 4 inches.
   Height: 8 feet 6 inches.
10. Weight: 11.5 tons.
11. Motor:
    Type: Mitsubishi.
    Cooling system: Air or water.
    Horsepower: 100.
    Horsepower per ton: 8.7.
12. Drive: Front sprocket.
13. Speed:
    Cross country:
    Road:
    Maximum: 20 miles per hour.
14. Cruising radius, at _____ speed 150 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Nine bogie wheels; four bogies; one independent bogie skirting.
19. Performance:
    Ground clearance: 1 foot 6 inches.
    Climbs 35° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches 8 feet 6 inches wide.
    Fords streams 3 feet deep.
20. Remarks: Based on Vickers Mark C. Several variants of this type. 57-mm gun may be alternative to 37-mm.

JAPANESE ARMY

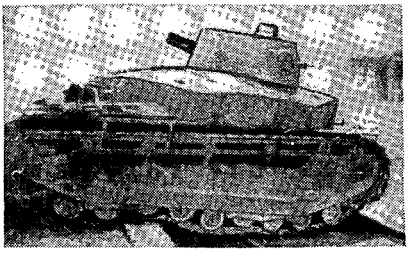
MEDIUM TANK M 2589 (1929)



View

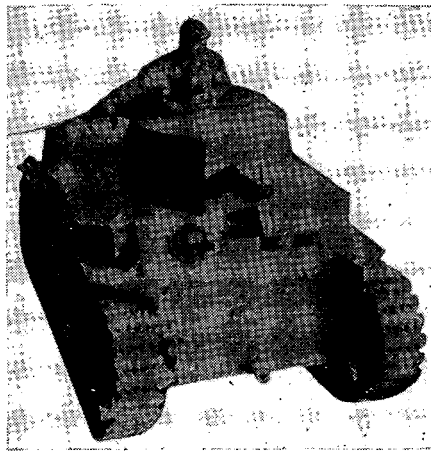
Front

Rear



Side

JAPANESE
ARMY



MEDIUM TANK, M 2590 (1930)
(OR 92–1932)

1. Crew: Five (one driver, one commander, and three gunners).
2. Armament: One gun, one machine gun in turret, and one machine gun in hull fore.
3. Ammunition: 5,000 rounds small-arms and 300 rounds 37-mm.
4. Armor, thickness: 0.23- to 0.67-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 17 feet 6 inches.
   Width: 8 feet 4 inches.
   Height: 8 feet 6 inches.
10. Weight: 11.31 tons.
11. Motor:
    Type: 6-cylinder Osaka Kikasi.
    Cooling system: Air.
    Horsepower: 120.
    Horsepower per ton: 10.6.
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum: 27 miles per hour.
14. Cruising radius, at _____ speed 147 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Nine bogie wheels; four bogies; one independent bogie wheel protective skirting.
19. Performance:
    Ground clearance:
    Climbs 38° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams _____ deep.
20. Remarks: Used by naval landing party.

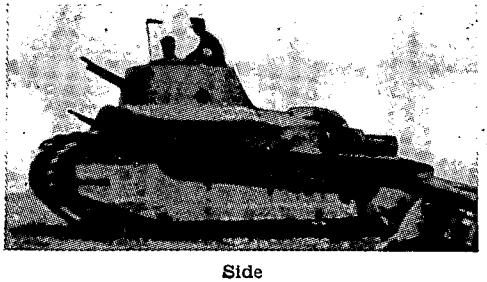
JAPANESE
ARMY

MEDIUM TANK
M 2590 (1930)
(OR 92–1932)

Top

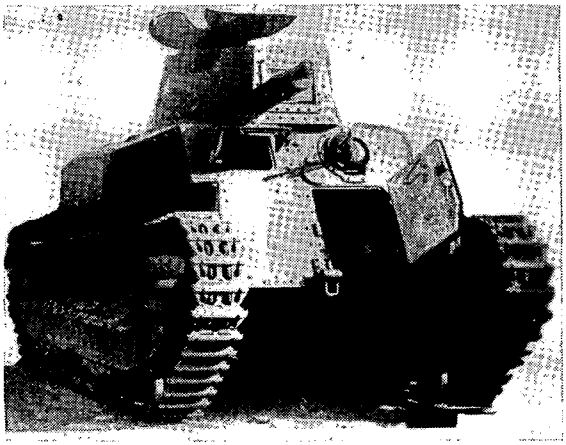
Front

Rear



Side

JAPANESE ARMY

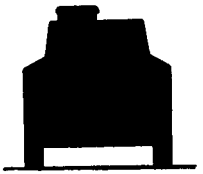


MEDIUM TANK, M 2594 (1934)

1. Crew: Five.
2. Armament: One 37-mm gun and one machine gun in turret; one machine gun and one bomb in hull fore. Mortar inside.
3. Ammunition: 6,000 rounds small-arms; 120 rounds 37-mm; 100 bombs.
4. Armor, thickness: 11- to 67-mm.
   Upper structure: 0.67-inch.
   Front: 0.67-inch.
   Sides, top, and rear: 0.43-inch.
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 20 feet 10 inches (with tail).
   Width: 8 feet 4 inches.
   Height: 8 feet 6 inches.
10. Weight: 14 tons.
11. Motor:
    Type: 6-cylinder Mitsubishi airplane.
    Cooling system: Air; louvre at rear.
    Horsepower: 160.
    Horsepower per ton: 11.4.
12. Drive: Front sprocket.
13. Speed:
    Cross country:
    Road:
    Maximum: 28 miles per hour.
14. Cruising radius, at _____ speed 157 miles.
15. Operating distance without refill: 124 miles (210 gals.)
16. Gear speeds and ratios: 8 forward; 2 rear.
17. Turning radius:
18. Suspension, type: Eight bogie wheels; four bogies, one independent bogie wheel.
19. Performance:
    Ground clearance: 1 foot 6 inches.
    Climbs 46° slopes.
    Negotiates vertical obstacle 3 feet high.
    Crosses trenches 10 feet 6 inches wide.
    Fords streams 3 feet deep.
20. Remarks: Different models exist. Used by army and navy landing party. Army model may have only one gun in turret. Gun may be 47-mm.

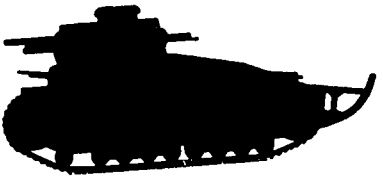
JAPANESE
ARMY

MEDIUM TANK
M 2594 (1934)



Front

Top-rear



Side

JAPANESE ARMY

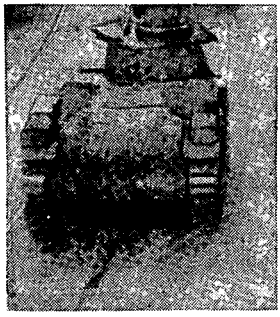
MEDIUM TANK 97 (1937)

1. Crew: Four.
2. Armament: Two machine guns, 7.7-mm; one gun, 47-mm.
3. Ammunition:
4. Armor, thickness:
   Upper structure: 0.58 inch.
   Front: 0.95 inch.
   Sides: 0.58 inch.
5. Turret: Single, 360° traverse.
6. Vision:
7. Ventilation:
8. Communications: Radio.
9. Dimensions:
   Length: 22.3 feet.
   Width: 8.2 feet.
   Height: 9.8 feet.
10. Weight: 14 to 15 tons.
11. Motor:
    Type:
    Cooling system: Water.
    Horsepower:
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country: 6 to 9 miles per hour.
    Road: 25 to 28 miles per hour.
    Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Two-wheeled; three bogies; two track support wheels.
19. Performance:
    Ground clearance: 1.2 feet.
    Climbs 40° slopes.
    Negotiates vertical obstacle 3.28 feet high.
    Crosses trenches 9.5 feet wide.
    Fords streams 3.2 feet deep.
20. Remarks: Gun also reported as 70-mm.

JAPANESE ARMY

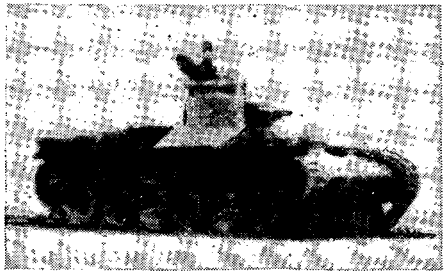
MEDIUM TANK 97 (1937)

Top



Front

Rear



Side

JAPANESE
ARMY

MEDIUM TANK, AICHI, 2599 (1939)

1. Crew: Five (one driver, one commander, three gunners).
2. Armament: One 37-mm gun in turret; two machine guns in turret; one machine gun in hull fore.
3. Ammunition: 2,500 rounds small-arms, 250 rounds 37-mm.
4. Armor, thickness: 0.67 inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 18 feet 4 inches.
   Width: 8 feet 4 inches.
   Height: 9 feet 2 inches.
10. Weight: 12 tons.
11. Motor:
    Type: 6-cylinder Aichi.
    Cooling system: Water.
    Horsepower: 110.
    Horsepower per ton: 9.16.
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum: 25 miles per hour.
14. Cruising radius, at _____ speed 160 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Nine bogie wheels; four bogies; one independent bogie with skirting.
19. Performance:
    Ground clearance:
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 9 inches high.
    Crosses trenches 7 feet 11 inches wide.
    Fords streams 3 feet 3 inches deep.
20. Remarks:

JAPANESE
ARMY

MEDIUM TANK
AICHI
2599 (1939)

Top

Front

Rear

Side

JAPANESE
ARMY

HEAVY TANK, AICHI, 2596 (1936)

1. Crew: Ten (one driver, one commander, five gunners, two loaders, one wireless)
2. Armament: One 75-mm, one 35-mm gun in turret and two machine guns in hull fore.
3. Ammunition: 5,000 rounds small-arms and 500 rounds of HE.
4. Armor, thickness: 1.38-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 31 feet.
   Width: 10 feet 8 inches.
   Height: 9 feet 2 inches.
10. Weight: 36 tons.
11. Motor:
    Type:
    Cooling system: Water.
    Horsepower: 350.
    Horsepower per ton: 9.72.
12. Drive: Front sprocket.
13. Speed:
    Cross country:
    Road:
    Maximum: 36 miles per hour.
14. Cruising radius, at _____ speed 175 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Six large bogie wheels.
19. Performance:
    Ground clearance:
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 9 inches high.
    Crosses trenches 15 feet wide.
    Fords streams 4 feet 2 inches deep.
20. Remarks: Modified form of Russian Tank 32–5.

JAPANESE
ARMY

HEAVY TANK
AICHI
2596 (1936)

Top

Front

Rear

Side

JAPANESE
ARMY

HEAVY TANK, M 2597 (1937)

1. Crew: Six (one driver, one commander, and four gunners).
2. Armament: Two 37-mm guns in turret and two machine guns in hull fore.
3. Ammunition: 2,000 rounds small-arms and 120 rounds 37 mm.
4. Armor, thickness: 1.38-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 24 feet 5 inches.
   Width: 9 feet 10 inches.
   Height: 9 feet 6 inches.
10. Weight: 32 tons.
11. Motor:
    Type: 12-cylinder Mitsubishi.
    Cooling system: Water.
    Horsepower: 250.
    Horsepower per ton: 7.8.
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum: 28 miles per hour.
14. Cruising radius, at _____ speed 128 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance:
    Climbs 45° slopes.
    Negotiates vertical obstacle 3 feet 6 inches high.
    Crosses trenches 7 feet wide.
    Fords streams 4 feet 2 inches deep.
20. Remarks: Used in Central China. Modified form of Russian T-28.

JAPANESE
ARMY

HEAVY TANK
M 2597 (1937)

Top

Front

Rear

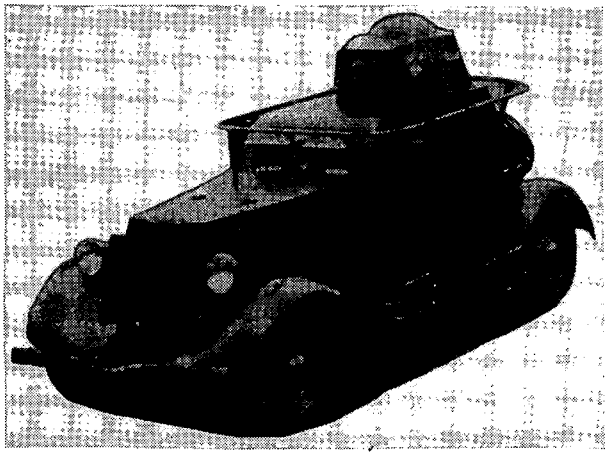
Side

US ARMY MILITARY HISTORY INSTITUTE
MCMLXVII

SECTION IV

ARMORED VEHICLES OF THE RUSSIAN ARMY

RUSSIAN ARMY



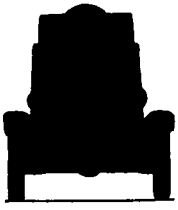
ARMORED CAR
BA BRONNIEFORD NO. 7
4-WHEELED

1. Crew: Three.
2. Armament: One machine gun in turret; one machine pistol.
3. Ammunition:
4. Armor, thickness:
   - Upper structure: 0.35-inch.
   - Front: 0.393-inch.
   - Sides: 0.393-inch.
5. Turret: One.
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   - Length: 12 feet 2 inches:
   - Width: 5 feet 7 inches.
   - Height: 6 feet 4 inches.
10. Weight:
11. Motor:
    - Type: Ford.
    - Cooling system: Water.
    - Horsepower: 50.
    - Horsepower per ton: 15.6.
12. Drive:
13. Speed:
    - Cross country: None.
    - Road: 43.4 to 46.5 miles per hour.
    - Maximum: 46.5 miles per hour.
14. Cruising radius, at road speed 160 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Automobile.
19. Performance:
    - Ground clearance: 8.5 inches.
    - Climbs _____° slopes.
    - Negotiates vertical obstacle _____ high.
    - Crosses trenches _____ wide.
    - Fords streams _____ deep.
20. Remarks: Without turret and machine gun this car weighs 2.1 tons and has a maximum speed of 53 miles per hour. Apparently modernized since silhouette was made.

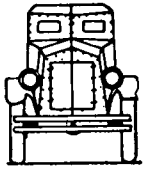
RUSSIAN
ARMY

ARMORED CAR
BA BRONNIEFORD NO. 7
4-WHEELED

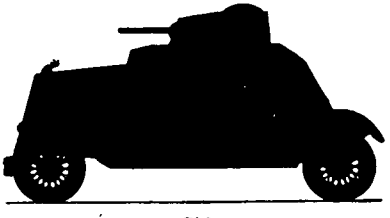
Top



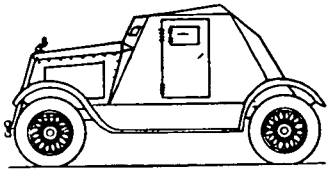
Front



Front—Alternate

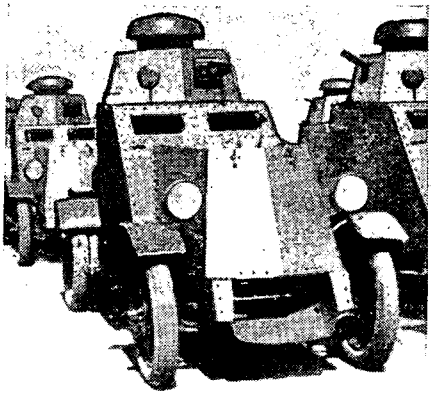


Side



Side—Alternate

RUSSIAN ARMY

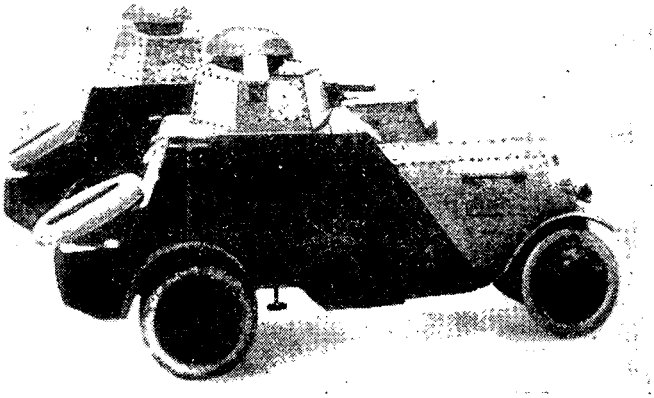


ARMORED CAR
BA 27
4-WHEELED

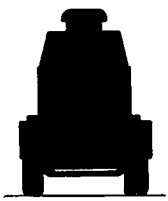
1. Crew: Four.
2. Armament: One 37-mm gun, and one 7.62-mm machine gun in revolving turret.
3. Ammunition:
4. Armor, thickness: 0.24- to 0.51-inch.
   Upper structure:
   Front:
   Sides:
5. Turret: One revolving.
6. Vision:
7. Ventilation:
8. Communications: Radio in some cars.
9. Dimensions:
   Length: 14 feet 9 inches.
   Width: 5 feet 11 inches.
   Height: 8 feet 1 inch.
10. Weight: 4.5 tons.
11. Motor:
    Type:
    Cooling system: Water.
    Horsepower: 40.
    Horsepower per ton: 8.9.
12. Drive:
13. Speed:
    Cross country: None.
    Road:
    Maximum: 43 miles per hour.
14. Cruising radius, at road speed 125 to 190 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Automobile.
19. Performance:
    Ground clearance 10.4 inches.
    Climbs _____° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams 19.7 inches deep.
20. Remarks: Obsolescent type, which is being gradually replaced with more modern types. Not used in Finnish War so far as known.

RUSSIAN
ARMY

ARMORED CAR
BA 27
4-WHEELED



Top



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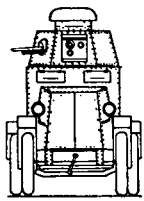

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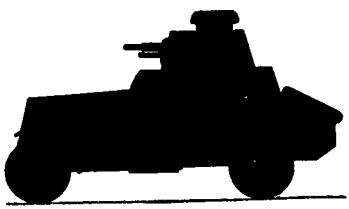
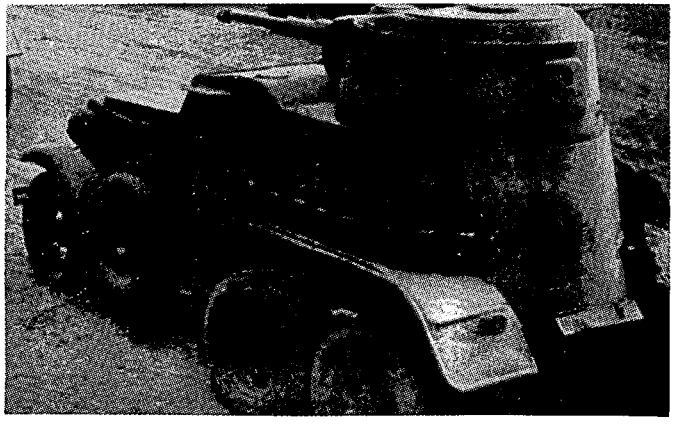
Front

Rear



Side

RUSSIAN
ARMY

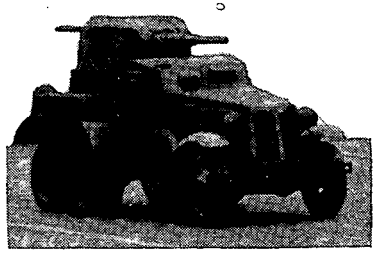


ARMORED CAR
BRONNIEFORD, 3-AXLED, 6-WHEELED

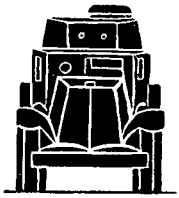
1. Crew: Four.
2. Armament: One 37-mm gun and one machine gun in turret; one machine gun beside driver.
3. Ammunition:
4. Armor, thickness:
   Upper structure: Averages 0.43- to 0.55-inch.
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 16 feet 2 inches.
   Width: 6 feet 3 inches.
   Height: 8 feet 0 inches.
10. Weight: 7 tons.
11. Motor:
    Type: Ford (?).
    Cooling system:
    Horsepower: 85.
    Horsepower per ton: 12.1.
12. Drive:
13. Speed:
    Cross country: Unknown; believed fair.
    Road:
    Maximum: 43 miles per hour.
14. Cruising radius, at road (?) speed 150 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance: 10.4 inches.
    Climbs _____° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams _____ deep.
20. Remarks: Six wheels with pneumatic tires; four rear wheels have dual tires and can be fitted with tracks. Modelled on British Lancaster.

RUSSIAN
ARMY

ARMORED CAR
BRONNIEFORD, 3-AXLED, 6-WHEELED

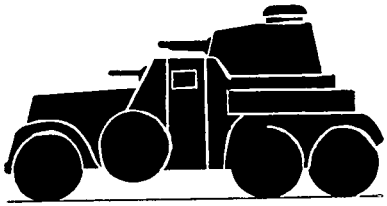


Top



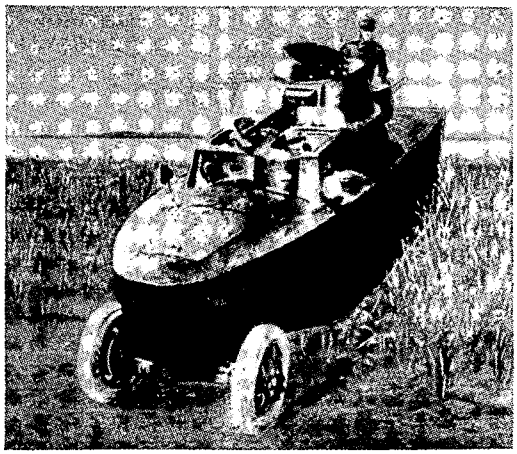
Front

Rear



Side

RUSSIAN
ARMY



ARMORED CAR
BA FORD AMPHIBIAN
6-WHEELED

1. Crew: Four.
2. Armament: One 37-mm gun and two 7.62-mm machine guns.
3. Ammunition:
4. Armor, thickness: 0.43- to 0.55-inch.
   Upper structure:
   Front:
   Sides:
5. Turret: One revolving 270° traverse turret in rear; two rigid front turrets.
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 17 feet 3 inches.
   Width: 6 feet 9 inches.
   Height: 7 feet 9 inches.
10. Weight: 9 tons.
11. Motor:
    Type: Ford (?).
    Cooling system: Water.
    Horsepower: 85.
    Horsepower per ton: 9.4.
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum: 40 miles per hour.
14. Cruising radius, at road (?) speed 125 to 190 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Automobile.
19. Performance:
    Ground clearance: 10 inches.
    Climbs _____° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams _____ deep.
    Amphibian.
20. Remarks: Six cut-out disk wheels with pneumatic tires. Drive: both rear axles. Photographs do not correspond to silhouettes.

RUSSIAN
ARMY

ARMORED CAR
BA FORD AMPHIBIAN
6-WHEELED

Top

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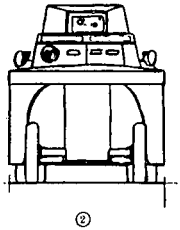

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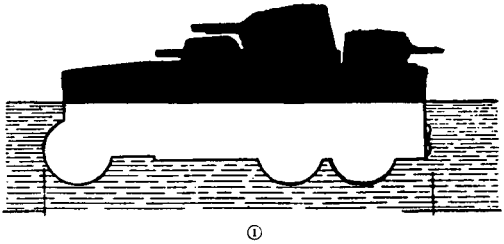
Front

Rear



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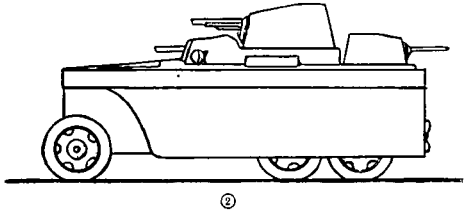

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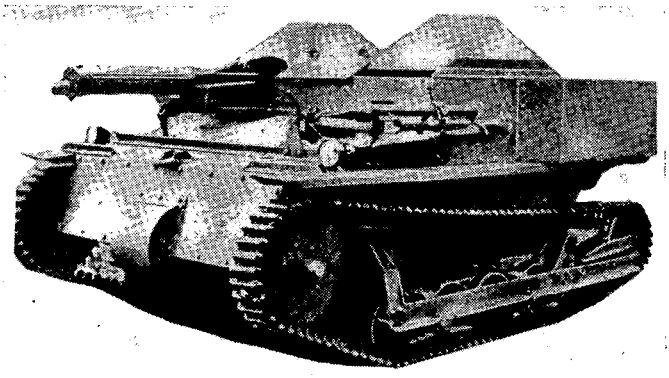
Side

RUSSIAN
ARMY

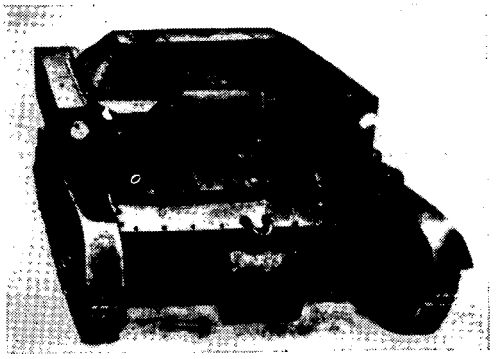


LIGHT TANK T–27

1. Crew: Two (driver and gunner).
2. Armament: One light machine gun.
3. Ammunition: 3,000 rounds.
4. Armor, thickness: 0.275-inch.
   Upper structure:
   Front:
   Sides:
5. Turret: One.
6. Vision:
7. Ventilation:
8. Communications: Flag.
9. Dimensions:
   Length: 8 feet 2 inches.
   Width: 5 feet 8 inches.
   Height: 4 feet 8 inches.
10. Weight: 2 tons.
11. Motor:
    Type: 4-cylinder Ford or Chevrolet.
    Cooling system: Water.
    Horsepower: 40.
    Horsepower per ton:
12. Drive: Front sprocket.
13. Speed:
    Cross country: 7 miles per hour.
    Road: 10 to 15 miles per hour.
    Maximum: 26 miles per hour.
14. Cruising radius, at ------- speed 78 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Four small bogie wheels, Carden-Lloyd system.
19. Performance:
    Ground clearance: 12 inches.
    Climbs 45° slopes.
    Negotiates vertical obstacle 1 foot 6 inches high.
    Crosses trenches 3 feet 6 inches wide.
    Fords streams 1 foot 6 inches deep.
20. Remarks: A large number in existence. Being replaced by T–37. Is an ordinary Carden - Lloyd made in Russia.

RUSSIAN
ARMY

LIGHT TANK
T-27



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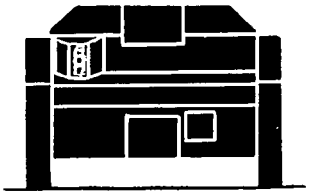

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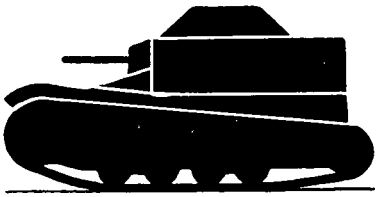

Side

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ARMY

LIGHT TANK
T–37, VICKERS, CARDEN–LLOYD

1. Crew: Two (driver and gunner).
2. Armament: One 7.62-mm machine gun or two 7.62-mm machine guns.
3. Ammunition: 3,000 rounds.
4. Armor, thickness:
   - Upper structure: 0.275-inch.
   - Front:
   - Sides: 0.315-inch (T–37 and T–38 said to have 0.258- to 0.394-inch.)
5. Turret: One.
6. Vision:
7. Ventilation:
8. Communications: Flag.
9. Dimensions:
   - Length: 13 feet 1 inch.
   - Width: 6 feet 6 inches.
   - Height: 6 feet.
10. Weight: 3 tons.
11. Motor:
    - Type: Meadow VI or Ford V.
    - Cooling system:
    - Horsepower: 56.
    - Horsepower per ton: 11.2 (?) to 18.
12. Drive: Front sprocket.
13. Speed:
    - Cross country:
    - Road: 29.7 miles per hour.
    - Maximum: 32 miles per hour.
    - In water: 6.2 miles per hour.
14. Cruising radius, at road (?) speed 62 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Four bogie wheels; two bogie scissors; articulation coil springs. Two track support wheels.
19. Performance:
    - Ground clearance: 10½ inches.
    - Climbs 45° slopes. (15° bank out of water).
    - Negotiates vertical obstacle 1 foot 7 inches high.
    - Crosses trenches 4 feet wide.
    - Fords streams _____ deep.
20. Remarks: Single screw in water. A large number of these tanks are in existence. They were originally Vickers amphibian light tanks.

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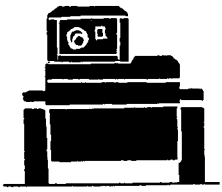
ARMY

LIGHT TANK
T–37, VICKERS, CARDEN–LLOYD

Top



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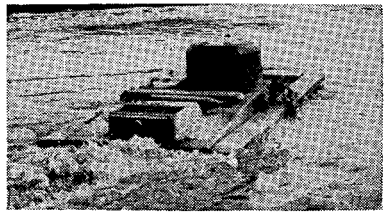

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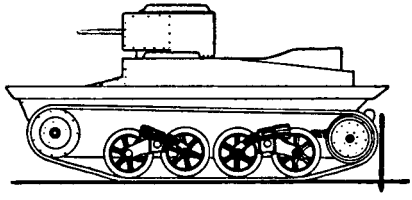

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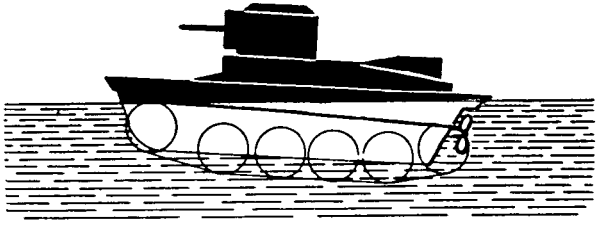

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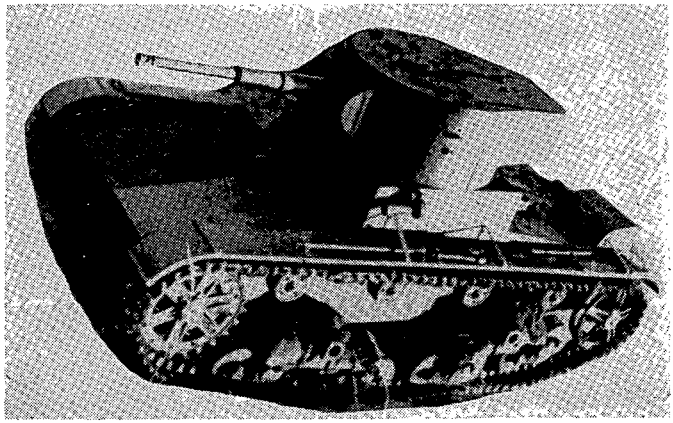
Side

RUSSIAN
ARMY



LIGHT TANK
T–26 A AND T–26 B VICKERS MA/30 AND MA/31

1. Crew: Three (driver, gunner, commander-wireless operator).
2. Armament: Type A, two light machine guns; type B, one 37-mm or 47-mm gun; one light machine gun coaxially mounted; one antiaircraft light machine gun.
3. Ammunition: A, 6,000 rounds for machine guns. B, 4,000 rounds for machine guns and 50 rounds for gun.
4. Armor, thickness:
   - Upper structure: A, 0.19-inch; B, 0.23-inch.
   - Front: A, 0.31-inch; B, 0.39-inch.
   - Sides: A, 0.51-inch; B, 0.55-inch.
5. Turret: A, two; B, one.
6. Vision:
7. Ventilation:
8. Communications: Radio on leading tanks.
9. Dimensions.
   - Length: 16 feet 4 inches.
   - Width: 8 feet 0 inches.
   - Height: 7 feet 2 inches.
10. Weight: 8½ tons.
11. Motor:
    - Type: Armstrong-Siddeley IV (Russian make).
    - Cooling system:
    - Horsepower: 90.
    - Horsepower per ton: 12.6 or 10.4.
12. Drive: Front sprocket.
13. Speed:
    - Cross country: 10 to 12 miles per hour.
    - Road: 12 miles per hour.
    - Maximum: 22 miles per hour.
14. Cruising radius, at road (?) speed 100 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Eight small bogie wheels; two bogies with left spring; four track support wheels.
19. Performance:
    - Ground clearance: 1 foot 3 inches.
    - Climbs 40° slopes.
    - Negotiates vertical obstacle 2 feet 5 inches high.
    - Crosses trenches 5 feet 9 inches wide.
    - Fords streams 3 feet deep.
20. Remarks: T–26A sometimes has one 7.63-mm and one 12.7-mm machine guns instead of two 7.63-mm machine guns. Russian version of Vickers 6-ton. In some cases has been made a flame thrower. Large numbers exist. Being replaced by BT M/ABC.

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ARMY

LIGHT TANK
T–26 A AND T–26 B
VICKERS MA/30 AND MA/31

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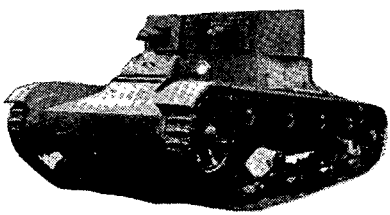

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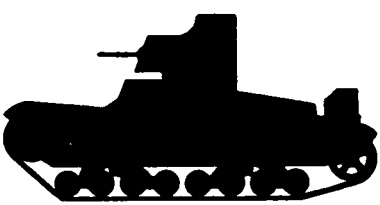
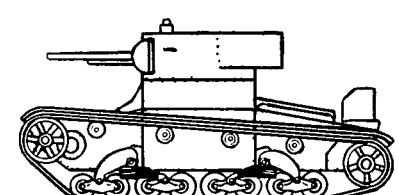


Side

Type A



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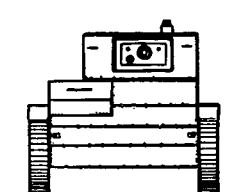

Front

Type B

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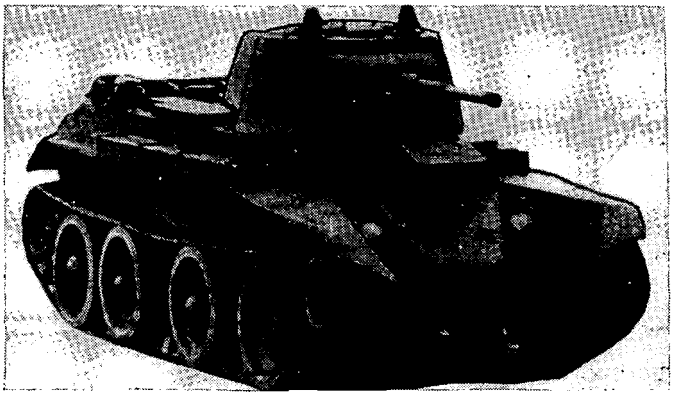


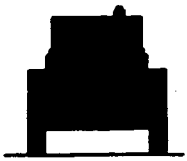
LIGHT TANK
BT (CHRISTIE) M/31
(BT–M/A; BT–M/B; BT–M/C; BT–M/D)

1. Crew: Three (driver, gunner, commander).
2. Armament: (1) One or two machine guns and one 45-mm gun. (2) One machine gun and one 76-mm gun. The BT–M/D is reported to have one short 76-mm gun and two machine guns.
3. Ammunition: 92 rounds for 37- or 45-mm; 2,700 rounds for machine guns.
4. Armor, thickness: 0.79-inch.
   Upper structure: 0.23-inch to 0.27-inch.
   Front: 0.5-inch to 0.624-inch.
   Sides: 0.39-inch.
5. Turret: One.
6. Vision:
7. Ventilation:
8. Communications: Radio.
9. Dimensions:
   Length: 18 feet 7 inches to 19 feet 2 inches.
   Width: 6 feet 10 inches to 7 feet 2 inches.
   Height: 7 feet 8 inches.
10. Weight: 10 to 11 tons.
11. Motor:
    Type: M34 or Hispano or Liberty; V–12.
    Cooling system: Water.
    Horsepower: 350 to 500.
    Horsepower per ton: 31.8 to 50.0.
12. Drive: Christie system; wheel drive.
13. Speed:
    Cross country: 37 miles per hour.
    Road: 15 to 25 miles per hour.
    Maximum: 37 with tracks; 69 on wheels.
14. Cruising radius, at road speed 150 miles on track: 250 miles on wheels.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Four large wheels. Christie knee action springing.
19. Performance:
    Ground clearance: 1 foot 1 inch.
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 6 inches high.
    Crosses trenches 6 feet 2 inches to 6 feet 10 inches wide.
    Fords streams 39 inches deep.
20. Remarks: Original Christie tank. Large numbers are in existence.

RUSSIAN ARMY

LIGHT TANK
BT (CHRISTIE) M/31
(BT-M/A; BT-M/B; BT-M/C; BT-M/D)

Top



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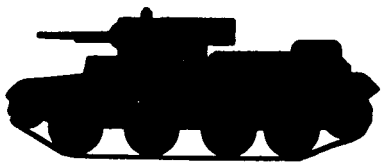
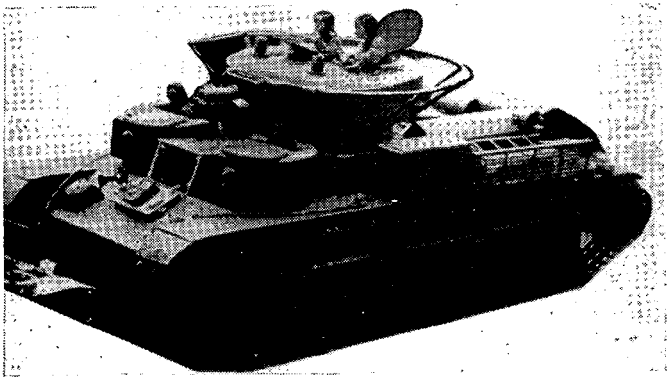


Side

RUSSIAN
ARMY

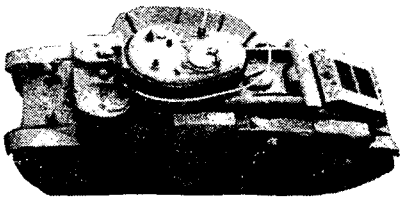


MEDIUM TANK
T–28 (M–I)
VICKERS–ARMSTRONG/29

1. Crew: Seven (driver, commander, four gunners, radio operator).
2. Armament: One 76-mm gun; four 7.62 machine guns (one antiaircraft gun).
3. Ammunition: 85 rounds for 76-mm; 4,000 rounds for machine guns.
4. Armor, thickness:
   Upper structure: 0.39-inch.
   Front: 0.98-inch.
   Sides: 1.37-inch.
5. Turret: One large; two small.
6. Vision:
7. Ventilation:
8. Communications: Radio.
9. Dimensions:
   Length: 23 feet 8 inches to 24 feet 3 inches.
   Width: 9 feet 0 inches to 9 feet 6 inches.
   Height: 8 feet 7 inches to 9 feet 10 inches.
10. Weight: 25 to 33 tons.
11. Motor:
    Type: 12-cylinder Hispano. 750 horsepower; M12 USA aero-engine 450 horsepower; Armstrong-Siddeley, XII/V.
    Cooling system:
    Horsepower: 450 to 750.
    Horsepower per ton: 18 to 22.8.
12. Drive: Rear sprocket.
13. Speed:
    Cross country: 6 to 10 miles per hour.
    Road: 18 to 23 miles per hour.
    Maximum: 27.9 miles per hour.
14. Cruising radius, at road (?) speed 60 to 125 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Ten small bogie wheels; four bogies; two independent bogie wheels protected by mild steel skirting; four track support wheels.
19. Performance:
    Ground clearance: 1 foot 6 inches.
    Climbs 45° slopes.
    Negotiates vertical obstacle 31 inches high.
    Crosses trenches 7 feet wide.
    Fords streams 3 feet 6 inches to 4 feet deep.
20. Remarks: A copy of the 16-ton British Vickers-Armstrong. Some models may have the Soviet M–34 motor.

RUSSIAN
ARMY

MEDIUM TANK
T–28 (M–I)
VICKERS–ARMSTRONG/29



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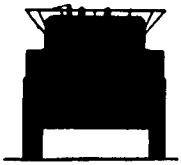

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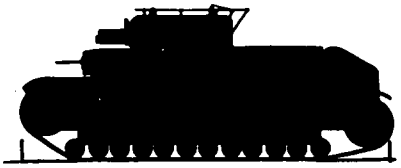

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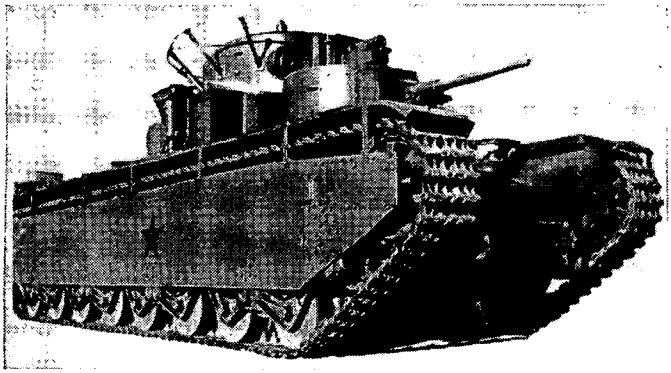
RUSSIAN
ARMY



HEAVY TANK
T–32 AND T–35 (M–II)
VICKERS

1. Crew: Ten or twelve.
2. Armament: One 76-mm gun; two 37-mm or 45-mm guns; 2 to 3 machine guns. One report states that the "Vickers-Independent M/I and II" has an armament of one 76-mm gun, two 37- or 45-mm guns, and five to six machine guns.
3. Ammunition:
4. Armor, thickness: 1.73-inch.
   Upper structure: 0.98-inch.
   Front: 1.37-inch.
   Sides: 0.98-inch.
5. Turret: Four.
6. Vision:
7. Ventilation:
8. Communications: Radio.
9. Dimensions:
   Length: 30 feet 6 inches.
   Width: 10 feet 6 inches.
   Height: 9 feet.
10. Weight: 33 to 35 tons.
11. Motor:
    Type: Armstrong-Siddeley XII/V.
    Cooling system:
    Horsepower: 500 to 750.
    Horsepower per ton: 14.2 to 22.7.
12. Drive: Rear sprocket.
13. Speed:
    Cross country:
    Road: 7 miles per hour.
    Maximum: 16 to 20 miles per hour.
14. Cruising radius, at road (?) speed 180 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Eight bogie wheels independently sprung; four track support wheels.
19. Performance:
    Ground clearance:
    Climbs 40° slopes.
    Negotiates vertical obstacle 3 feet 11 inches high.
    Crosses trenches 15 feet 1 inch wide.
    Fords streams 3 feet 11 inches deep.
20. Remarks: Considerable numbers are in existence. Silhouettes from old model.

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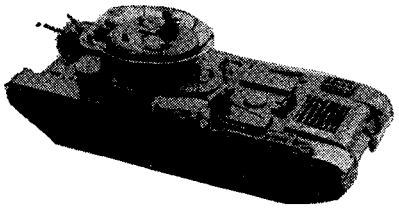
HEAVY TANK
T–32 AND T–35 (M–II)
VICKERS



Top

Front

Rear

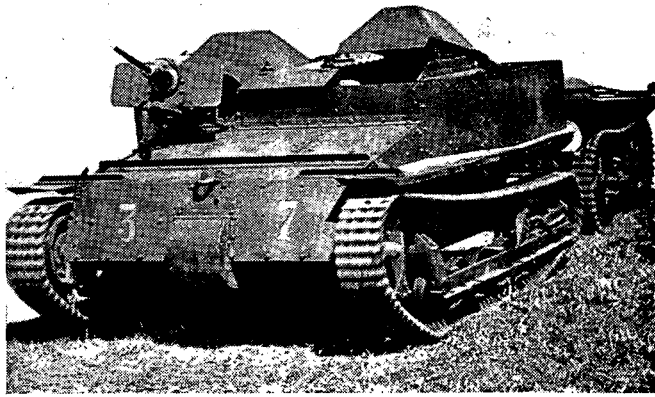
Side

US ARMY MILITARY HISTORY INSTITUTE
MCMLXVII

SECTION V

ARMORED VEHICLES OF THE ITALIAN ARMY

ITALIAN ARMY



SCOUT CAR
FIAT–CARDEN–LLOYD

1. Crew: Two.
2. Armament: One heavy machine gun.
3. Ammunition:
4. Armor, thickness: 0.23- to 0.35-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 9 feet.
   Width: 5 feet 6 inches.
   Height: 39 inches.
10. Weight: 2 tons.
11. Motor: Gasoline engine.
    Type: 4-cylinder Fiat.
    Cooling system:
    Horsepower: 20.
    Horsepower per ton: 11.6.
12. Drive: Gear and planet.
13. Speed:
    Cross country:
    Road:
    Maximum: 25 miles per hour.
14. Cruising radius, at _____ speed, 75 miles.
15. Operating distance without refill:
16. Gear speeds and ratios: 4 forward, 2 back.
17. Turning radius: 13 feet.
18. Suspension, type:
19. Performance:
    Ground clearance:
    Climbs _____° slopes.
    Negotiates vertical obstacle 1 foot 3 inches high.
    Crosses trenches 4 feet wide.
    Fords streams _____ deep.
20. Remarks:

ITALIAN
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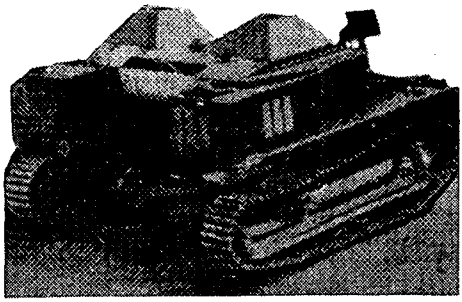
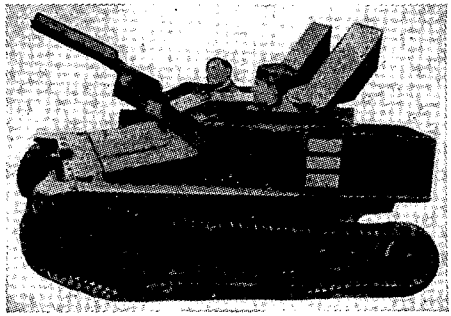
SCOUT CAR
FIAT–CARDEN–LLOYD



Top

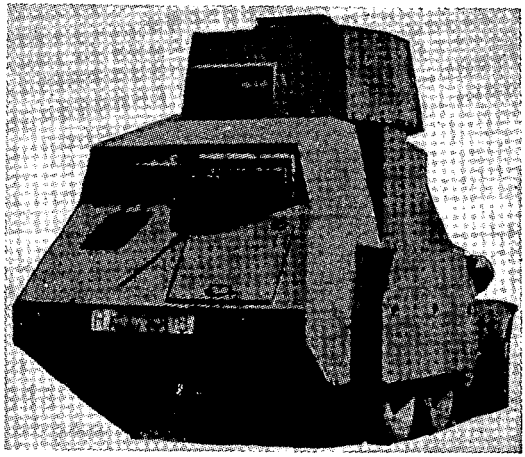
Front

Rear



Side

ITALIAN
ARMY



ARMORED CAR
FIAT M 1934

1. Crew: Four or five.
2. Armament: One 47-mm gun; two machine guns.
3. Ammunition:
4. Armor, thickness: 0.31- to 0.51-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 15 feet.
   Width: 6 feet 6 inches.
   Height: 7 feet 6 inches.
10. Weight:
11. Motor:
    Type: 6-cylinder Fiat.
    Cooling system:
    Horsepower: 56.
    Horsepower per ton: 8¼.
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum: 25 miles per hour:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance:
    Climbs _____° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams _____ deep.
20. Remarks:

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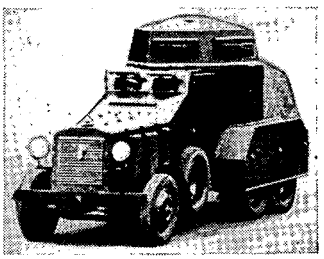
ARMY

ARMORED CAR
FIAT M 1934

Top

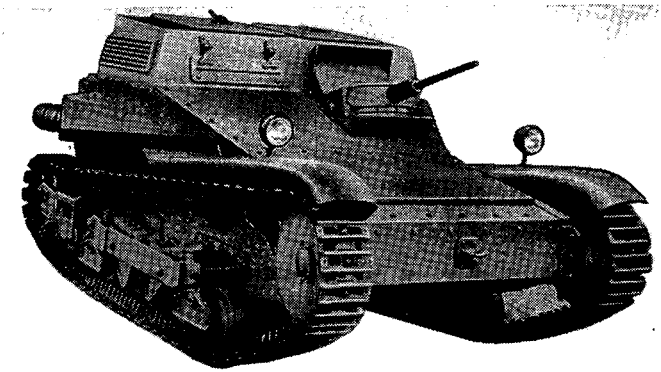
Front

Rear



Side

ITALIAN ARMY

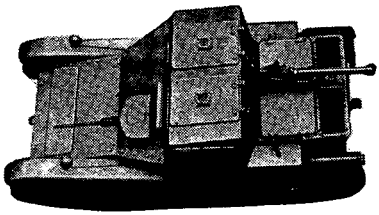


LIGHT TANK
FIAT–ANSALDO
CV 3/33–35

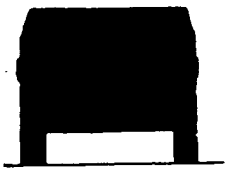
1. Crew: Two.
2. Armament: Two machine guns or one light machine gun and flame thrower (inflammable liquid carried in trailer).
3. Ammunition: 2,240 rounds small-arms.
4. Armor, thickness: 0.31- to 0.62-inch.
   Upper structure:
   Front:
   Sides:
5. Turret: None.
6. Vision:
7. Ventilation:
8. Communications: Flag (sometimes radio).
9. Dimensions:
   Length: 10 feet 6 inches.
   Width: 4 feet 7 inches.
   Height: 4 feet 2 inches.
10. Weight: 3.5 tons.
11. Motor: Gasoline engine.
    Type: 4-cylinder.
    Cooling system: Water.
    Horsepower: 42.
    Horsepower per ton: 13.3.
12. Drive: Front sprocket.
13. Speed: Four speeds.
    Cross country:
    Road:
    Maximum: 26 miles per hour.
14. Cruising radius, at ------ speed 55 to 60 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Seven bogie wheels; two bogies connected by girder bearer; one independent bogie wheel at rear, leaf springing.
19. Performance:
    Ground clearance: Nine inches.
    Climbs 45° slopes.
    Negotiates vertical obstacle 2 feet high.
    Crosses trenches 4 feet 9 inches wide.
    Fords streams 2 feet 2 inches deep.
20. Remarks: 0.31-inch armor on earlier model, 0.62-inch armor on later model. Standard Italian tank. Large number are in existence. Designed from Carden-Lloyd. May be used as bridge carrier which enables them to cross 16½-foot obstacles. Flame thrower has effective range of 110 yards.

ITALIAN
ARMY

LIGHT TANK
FIAT–ANSALDO
CV 3/33–35

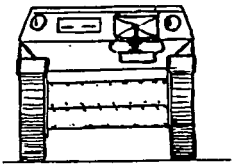


Top



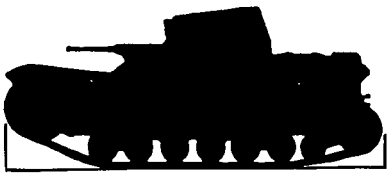
①

Front



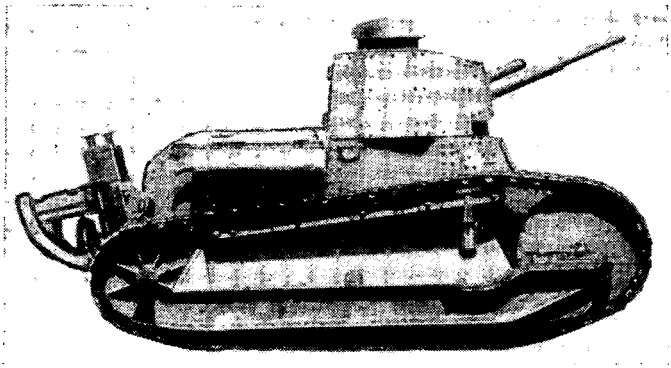
②

Rear



Side

ITALIAN
ARMY



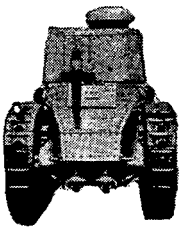
LIGHT TANK
FIAT-ANSALDO
3000B (OLD MODEL)

1. Crew: Two.
2. Armament: One 37-mm gun; one light machine gun or two light machine guns coaxially mounted.
3. Ammunition: 60 rounds for gun.
4. Armor, thickness: 0.71-inch.
   Upper structure:
   Front:
   Sides:
5. Turret: None.
6. Vision:
7. Ventilation:
8. Communications: Flag; radio for commander's car.
9. Dimensions:
   Length: 12 feet 3 inches (14 feet 1 inch with tail).
   Width: 5 feet 6 inches.
   Height: 7 feet 3 inches.
10. Weight: 5.8 tons.
11. Motor: Gasoline engine.
    Type: Fiat.
    Cooling system: Water.
    Horsepower: 60.
    Horsepower per ton:
12. Drive:
13. Speed.
    Cross country:
    Road: 13 miles per hour.
    Maximum:
14. Cruising radius, at ------ speed 43 miles or 5 hours.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Four bogie wheels obscured by large girder bearer; very large spoked; front idling wheel.
19. Performance:
    Ground clearance: 1 foot 6 inches.
    Climbs 41° slopes.
    Negotiates vertical obstacle 2 feet 0 inches high.
    Crosses trenches 4 feet 11 inches wide.
    Fords streams 2 feet 11 inches deep.
20. Remarks: Obsolescent. A considerable number of these tanks may be in existence. Are carried on trailers.

ITALIAN
ARMY

LIGHT TANK
FIAT-ANSALDO
3000B (OLD MODEL)

Top

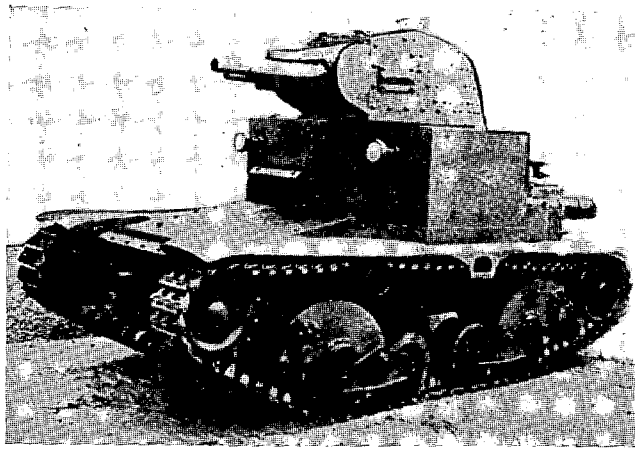


Front

Rear

Side

ITALIAN ARMY



LIGHT TANK
FIAT–ANSALDO
3000B (LATE MODEL)

1. Crew: Two or three.
2. Armament: One 37-mm gun or two machine guns.
3. Ammunition: 60 rounds for gun.
4. Armor, thickness: 0.63-inch.
   Upper structure:
   Front:
   Sides: 0.3-inch.
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 11 feet 6 inches.
   Width: 5 feet 7 inches.
   Height: 6 feet 6 inches.
10. Weight: 5 tons.
11. Motor: Gasoline engine.
    Type: 4-cylinder Fiat.
    Cooling system: Water.
    Horsepower: 45.
    Horsepower per ton:
12. Drive: Front sprocket.
13. Speed:
    Cross country:
    Road: 13 miles per hour.
    Maximum:
14. Cruising radius, at ------- speed 60 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Five bogie wheels; one independent fixed bogie at rear; leaf springing and rocker.
19. Performance:
    Ground clearance: 1 foot 6 inches.
    Climbs 45° slopes.
    Negotiates vertical obstacle 1 foot 8 inches high.
    Crosses trenches 5 feet wide.
    Fords streams 2 feet 11 inches deep.
20. Remarks: Modern type of Italian light tank. May be used extensively.

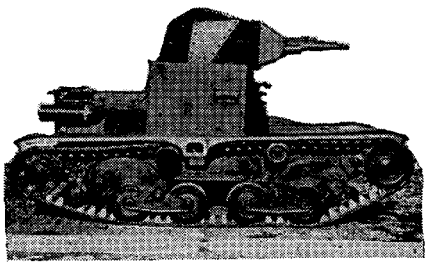
ITALIAN
ARMY

LIGHT TANK
FIAT–ANSALDO
3000B (LATE MODEL)

Top

Front

Rear



Side

ITALIAN
ARMY

LIGHT TANK
M 1940

1. Crew: Two.
2. Armament: One 37-mm gun or one machine gun.
3. Ammunition:
4. Armor, thickness:
   Upper structure: 0.5-inch.
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length, 13 feet 1 inch.
   Width: 5 feet 5 inches.
   Height: 7 feet 3 inches.
10. Weight: 5 tons.
11. Motor:
    Type: Gasoline.
    Cooling system:
    Horsepower: 95.
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum: 20 miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance:
    Climbs _____° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches _____ wide.
    Fords streams _____ deep.
20. Remarks:

ITALIAN
ARMY

LIGHT TANK
M 1940

Top

Front

Rear

Side

ITALIAN
ARMY

LIGHT TANK
M–6

1. Crew: Two.
2. Armament: One 20-mm gun; one light machine gun coaxially mounted.
3. Ammunition:
4. Armor, thickness:
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 12 feet 5 inches.
   Width: 6 feet 1 inch.
   Height:
10. Weight: 6.1 tons.
11. Motor: Gasoline engine.
    Type:
    Cooling system:
    Horsepower: 70.
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum: 22 miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance: 1 foot 2 inches.
    Climbs 45° slopes.
    Negotiates vertical obstacle 2 feet 2 inches high.
    Crosses trenches 4 feet 3 inches wide.
    Fords streams 2 feet 11 inches deep.
20. Remarks: In course of completion, approximate data only.

ITALIAN
ARMY

LIGHT TANK
M–6

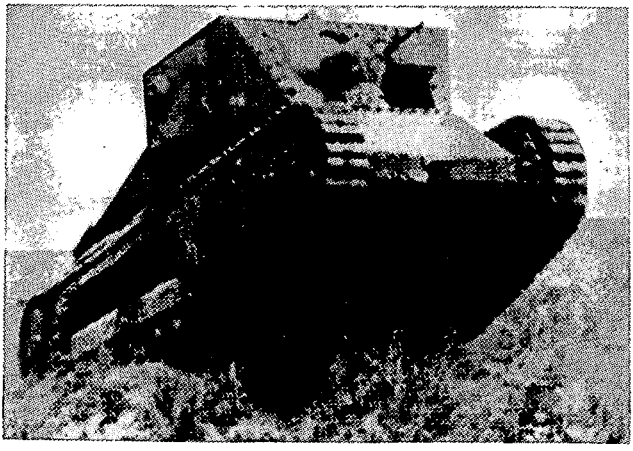
Top

Front

Rear

Side

ITALIAN ARMY



LIGHT TANK
CARRO D' ASSALTO
(M11/39)

1. Crew: Three (driver, gunner, commander).
2. Armament: One 20-mm machine gun; one 8-mm light machine gun; or two 8-mm machine guns and possibly flame thrower.
3. Ammunition: 2,000 rounds for machine gun; 500 rounds for heavy machine gun.
4. Armor, thickness: 1.03-inch.
   Upper structure:
   Front:
   Sides: 0.5-inch.
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Radio.
9. Dimensions:
   Length: 12 feet 10 inches.
   Width: 6 feet.
   Height: 6 feet 3 inches.
10. Weight: 6 to 8 tons.
11. Motor: Gasoline engine.
    Type:
    Cooling system:
    Horsepower: 100.
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country:
    Road: 18 miles per hour.
    Maximum:
14. Cruising radius, at _____ speed 124 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Completely obscured by skirting.
19. Performance:
    Ground clearance: 1 foot 11 inches.
    Climbs 45° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches 5 feet 10 inches wide.
    Fords streams 2 feet 6 inches deep.
20. Remarks: 300 of these vehicles were to be delivered February 1939, although believed not this many in service.

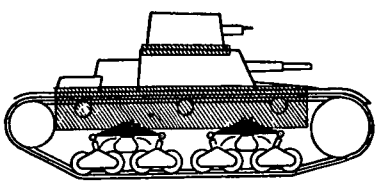
ITALIAN
ARMY

LIGHT TANK
CARRO D' ASSALTO
(M11/39)

Top

Front

Rear



(Alternate model)
Side

ITALIAN
ARMY

MEDIUM TANK
ANSALDO

1. Crew: Three.
2. Armament: One 37-mm or 40-mm cannon; two 9-mm machine guns in turret.
3. Ammunition: 3,000 rounds.
4. Armor, thickness: Over turret, 1.57-inch.
   Upper structure:
   Front: 1.18-inch.
   Sides: 0.59-inch.
5. Turret: Power driven.
6. Vision: Driver has periscope and slit. Gunner has telegraphic sight and slit. Commander has Zeiss periscope slit and machine gun telescopic sight.
7. Ventilation:
8. Communications: Radio.
9. Dimensions:
   Length: 15 feet 6 inches.
   Width: 7 feet 2 inches.
   Height:
10. Weight: 11 tons.
11. Motor:
    Type: Diesel.
    Cooling system:
    Horsepower: 105.
    Horsepower per ton:
12. Drive: Front sprocket. Two steering levers said to be epicyclic.
13. Speed:
    Cross country:
    Road:
    Maximum: 21 miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill: 124 miles or 10 hours on broken terrain.
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Torsion; eight hard-rubber-tired track rollers grouped in pairs; two bogies.
19. Performance:
    Ground clearance: 1 foot 2 inches.
    Climbs 45° slopes.
    Negotiates vertical obstacle 2 feet 7 inches high.
    Crosses trenches 6 feet 7 inches wide.
    Fords streams 3 feet 3 inches deep.
20. Remarks:

ITALIAN
ARMY

MEDIUM TANK
ANSALDO

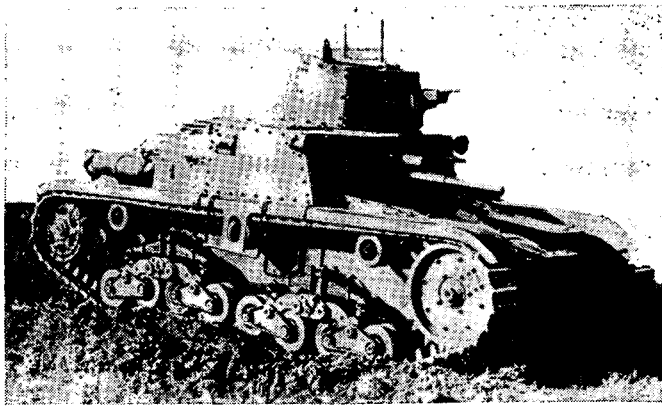
Top

Front

Rear

Side

ITALIAN ARMY



MEDIUM TANK M–13/40

1. Crew: Four.
2. Armament: One 47-mm gun; one machine gun coaxially mounted in turret; two machine guns coaxially mounted in hull, 1 machine gun reserve.
3. Ammunition: 90 rounds for gun; 3,000 rounds for machine gun.
4. Armor, thickness:
   Upper structure:
   Front:
   Sides:
5. Turret: Power.
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 16 feet 0 inches.
   Width: 7 feet 6 inches.
   Height: 6 feet 11 inches.
10. Weight: 13 tons.
11. Motor:
    Type: Diesel.
    Cooling system:
    Horsepower: 105.
    Horsepower per ton:
12. Drive: Front sprocket.
13. Speed:
    Cross country:
    Road: 19 miles per hour.
    Maximum:
14. Cruising radius, at ------- speed 112 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Eight bogie wheels; two bogies; leaf springing.
19. Performance:
    Ground clearance: 1 foot 4 inches.
    Climbs 40° to 45° slopes.
    Negotiates vertical obstacle 2 feet 11 inches high.
    Cross trenches 6 feet 6 inches wide.
    Fords streams 3 feet 3 inches deep.
20. Remarks: Has been identified in Libya. May exist in considerable numbers. The gun being mounted in hull may reduce its effectiveness. Improvement of M–11/39.

ITALIAN
ARMY

MEDIUM TANK
M-13/40

Top

Front

Rear

Side

ITALIAN
ARMY

MEDIUM TANK
CARRO DE ROTTURA

1. Crew: Seven (four drivers, two gunners, one wireless operator-commander).
2. Armament: One 47-mm gun; two 8-mm machine guns.
3. Ammunition: 150 rounds for 47-mm gun; 4,000 rounds for machine gun.
4. Armor, thickness: 1.19-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Radio.
9. Dimensions:
   Length: 14 feet 8 inches.
   Width: 7 feet.
   Height: 7 feet 3 inches.
10. Weight: 14¾ tons.
11. Motor:
    Type: Diesel.
    Cooling system:
    Horsepower: 160.
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum: 25 miles per hour.
14. Cruising radius, at _____ speed 186 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance: 1 foot 4 inches.
    Climbs 40° slopes.
    Negotiates vertical obstacle 1 foot 11 inches high.
    Crosses trenches 6 feet wide.
    Fords streams 2 feet 6 inches deep.
20. Remarks: First issued in 1939. Less than 150 in service.

ITALIAN
ARMY

MEDIUM TANK
CARRO DE ROTTURA

Top

Front

Rear

Side

ITALIAN
ARMY

MEDIUM TANK
FIAT 36

1. Crew: Six or eight.
2. Armament: One 37-mm or 47-mm gun; three 8-mm machine guns.
3. Ammunition:
4. Armor, thickness:
   - Upper structure:
   - Front:
   - Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   - Length:
   - Width:
   - Height:
10. Weight: 20 to 25 tons.
11. Motor:
    - Type:
    - Cooling system:
    - Horsepower:
    - Horsepower per ton:
12. Drive:
13. Speed:
    - Cross country:
    - Road:
    - Maximum: 22 miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    - Ground clearance:
    - Climbs _____° slopes.
    - Negotiates vertical obstacle 3 feet 7 inches high.
    - Crosses trenches 9 feet 10 inches wide.
    - Fords streams 2 feet 6 inches deep.
20. Remarks:

ITALIAN
ARMY

MEDIUM TANK
FIAT 36

Top

Front

Rear

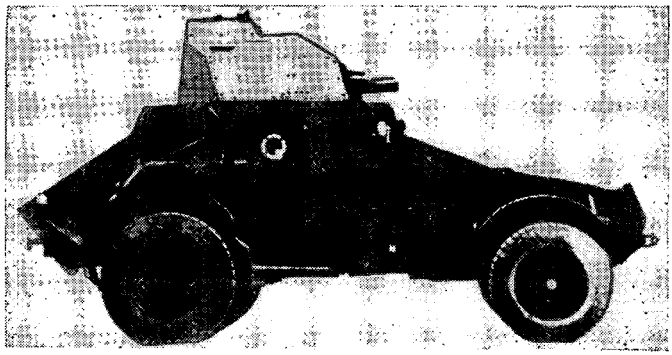
Side

US ARMY MILITARY HISTORY INSTITUTE
MCMLXVII

SECTION VI

ARMORED VEHICLES OF THE FRENCH ARMY

FRENCH
ARMY

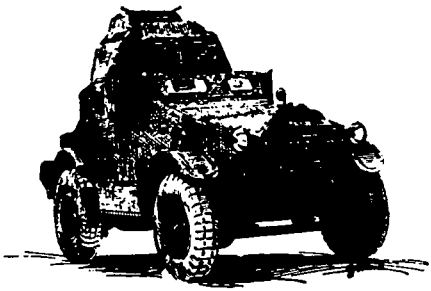


ARMORED CAR
AMD PANCHARD-TOE
FOUR-WHEELED

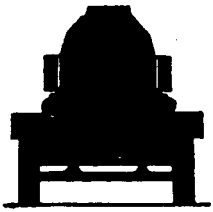
1. Crew:
2. Armament:
3. Ammunition:
4. Armor, thickness:
   Upper structure:
   Front:
   Sides:
5. Turret: One with cupola.
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length:
   Width:
   Height:
10. Weight:
11. Motor:
   Type:
   Cooling system:
   Horsepower:
   Horsepower per ton:
12. Drive:
13. Speed:
   Cross country:
   Road:
   Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
   Ground clearance:
   Climbs _____° slopes.
   Negotiates vertical obstacle _____ high.
   Crosses trenches _____ wide.
   Fords streams _____ deep.
20. Remarks: Two unprotected water condensers on either side of vehicle. Four wheels.

FRENCH
ARMY

ARMORED CAR
AMD PANCHARD-TOE
FOUR-WHEELED

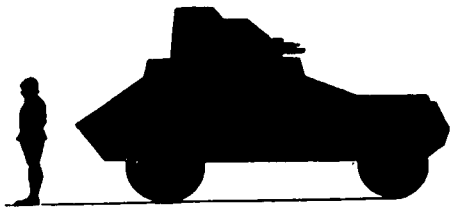


View



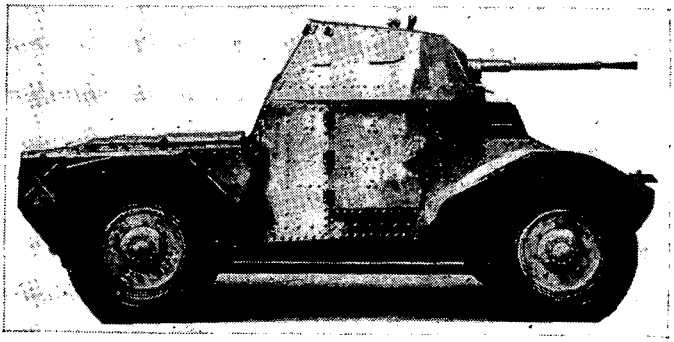
Front

Rear



Side

FRENCH
ARMY

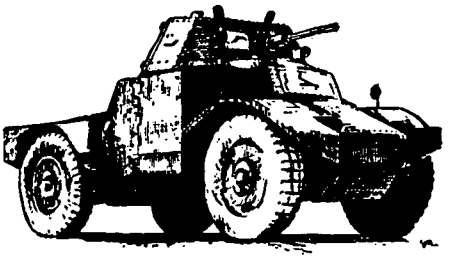


ARMORED CAR
AMD PANCHARD, 1935
FOUR-WHEELED

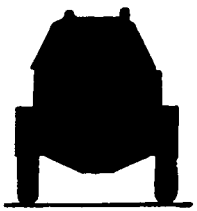
1. Crew:
2. Armament:
3. Ammunition:
4. Armor, thickness:
   - Upper structure:
   - Front:
   - Sides:
5. Turret: One.
6. Vision: Two turret periscopes.
7. Ventilation:
8. Communications:
9. Dimensions:
   - Length:
   - Width:
   - Height:
10. Weight:
11. Motor: At rear.
    - Type:
    - Cooling system:
    - Horsepower:
    - Horsepower per ton:
12. Drive:
13. Speed:
    - Cross country:
    - Road:
    - Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    - Ground clearance:
    - Climbs _____° slopes.
    - Negotiates vertical obstacle _____ high.
    - Crosses trenches _____ wide.
    - Fords streams _____ deep.
20. Remarks: No front bumper bar.

FRENCH
ARMY

ARMORED CAR
AMD PANCHARD,1935
FOUR-WHEELED

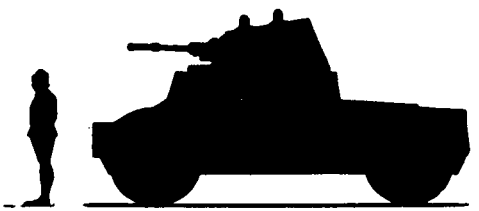


View



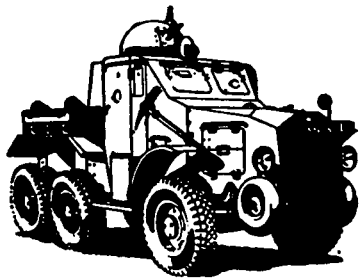
Front

Rear



Side

FRENCH
ARMY



ARMORED CAR
AM LAFFLEY-TOE
SIX-WHEELED

1. Crew:
2. Armament:
3. Ammunition:
4. Armor, thickness: Welded.
   Upper structure:
   Front:
   Sides:
5. Turret: Spherical.
6. Vision: Periscope.
7. Ventilation:
8. Communications:
9. Dimensions:
   Length:
   Width:
   Height:
10. Weight:
11. Motor:
   Type:
   Cooling system:
   Horsepower:
   Horsepower per ton:
12. Drive: Six drive wheels.
13. Speed:
   Cross country:
   Road:
   Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
   Ground clearance:
   Climbs _____° slopes.
   Negotiates vertical obstacle _____ high.
   Crosses trenches _____ wide.
   Fords streams _____ deep.
20. Remarks: Two small scaling wheels in front; can be driven in either direction.

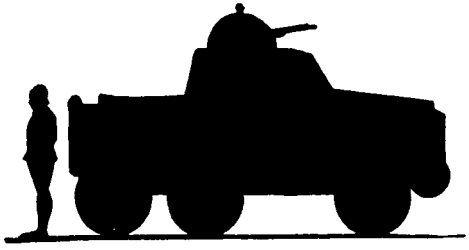
FRENCH
ARMY

ARMORED CAR
AM LAFFLEY-TOE
SIX-WHEELED

Top

Front

Rear



Side

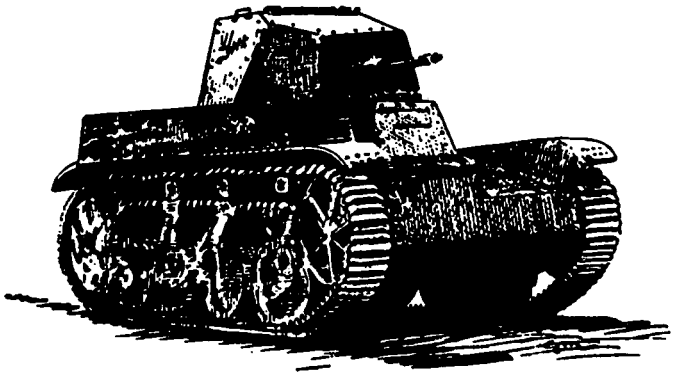
FRENCH
ARMY

LIGHT TANK
RENAULT 1935, AMR

1. Crew: Two (one driver, one gunner).
2. Armament: One 13-mm heavy machine gun; two light machine guns.
3. Ammunition: 220 rounds for heavy machine gun; 2,250 rounds for light machine guns.
4. Armor, thickness: 0.51-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Radio; flag; lamp.
9. Dimensions:
   Length: 12 feet 6 inches.
   Width: 5 feet 3 inches.
   Height: 6 feet 6 inches.
10. Weight: 4½ to 5 tons.
11. Motor:
    Type: 4-cylinder.
    Cooling system: Water.
    Horsepower: 80.
    Horsepower per ton:
12. Drive: Front sprocket.
13. Speed:
    Cross country:
    Road: 31 miles per hour.
    Maximum:
14. Radius of action: 125 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Four bogie wheels; one bogie; two independent bogie wheels fore and aft.
19. Performance:
    Ground clearance: 1 foot two inches.
    Climbs 40° slopes.
    Negotiates vertical obstacle 1 foot 8 inches high.
    Crosses trenches 4 feet 3 inches wide.
    Fords streams 1 foot 8 inches deep.
20. Remarks: 200 were in existence.

FRENCH
ARMY

LIGHT TANK
RENAULT 1935, AMR



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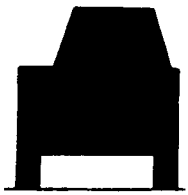
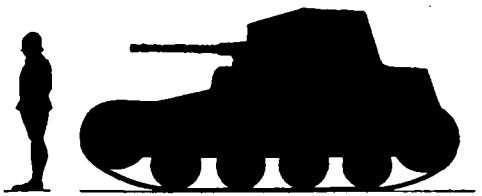


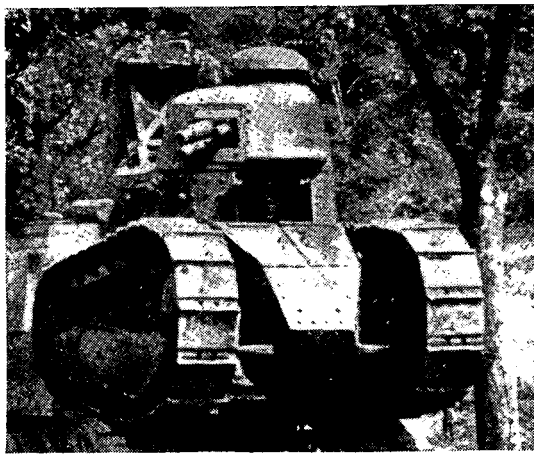
Front

Rear



Side

FRENCH
ARMY



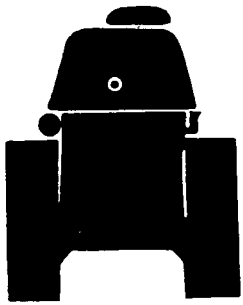
LIGHT TANK
F. T.

1. Crew: Two.
2. Armament: One 37-mm gun or one machine gun.
3. Ammunition:
4. Armor, thickness:
   Upper structure:
   Front:
   Sides:
5. Turret: 15- to 22-mm armor.
6. Vision: Eye slits.
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 17 feet 0 inch.
   Width:
   Height: 7 feet 3½ inches.
10. Weight: 7 tons.
11. Motor:
    Type: F. T.
    Cooling system:
    Horsepower:
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum: 5 miles per hour.
14. Radius of action: 12 to 15 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance:
    Climbs 45° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches 5 feet 0 inches wide (approximately).
    Fords streams _____ deep.
20. Remarks: Old, World War type. Slow and noisy. Radius of action so limited that they must be transported to place of action. Upkeep limits use to 3 hours per day with 1 day's rest in 3 days.

FRENCH
ARMY

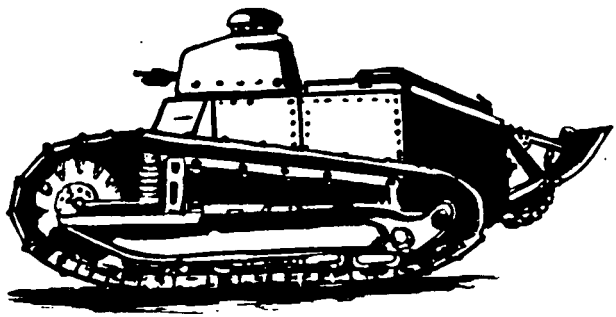
LIGHT TANK
F. T.

Top



Front

Rear



Side

FRENCH
ARMY

LIGHT TANK
RENAULT R 1935

1. Crew: Two (one driver, one gunner).
2. Armament: One 37-mm gun; one light machine gun coaxially mounted.
3. Ammunition: 100 rounds for gun; 2,400 rounds for light machine gun.
4. Armor, thickness: 1½-inch cast steel.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Radio and flag.
9. Dimensions:
   Length: 13 feet 2 inches.
   Width: 6 feet.
   Height: 8 feet 1 inch.
10. Weight: 11 tons.
11. Motor:
    Type: 4-cylinder.
    Cooling system: Water.
    Horsepower: 83.
    Horsepower per ton:
12. Drive: Front sprocket.
13. Speed:
    Cross country:
    Road: 12½ miles per hour.
    Maximum:
14. Radius of action: 90 to 95 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Five bogie wheels; two pairs bogies with scissor articulation; one independent bogie wheel.
19. Performance:
    Ground clearance: 1 foot 2 inches.
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 11 inches high.
    Crosses trenches 5 feet 3 inches wide.
    Fords streams 2 feet 7 inches deep.
20. Remarks: A large number were in existence. Tank may be fitted with a tail to improve trench-crossing performance. Can be easily mass produced.

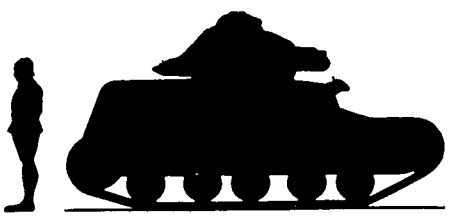
FRENCH
ARMY

LIGHT TANK
RENAULT R 1935

View

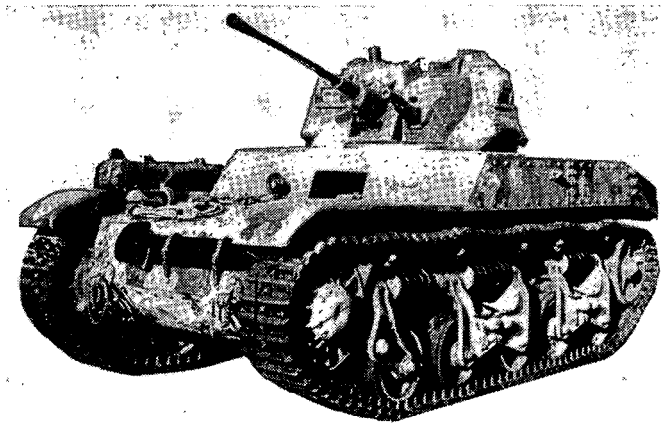
Front

Rear



Side

FRENCH
ARMY



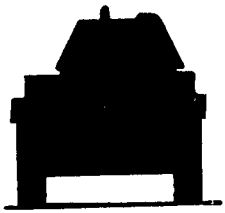
LIGHT TANK
AMC RENAULT, 1935

1. Crew: Two.
2. Armament: One 37-mm gun; one machine gun.
3. Ammunition: 108 rounds for gun; 2,100 rounds for machine gun.
4. Armor, thickness: 1 9/16-inch.
   Upper structure:
   Front:
   Sides:
5. Turret: Yes.
6. Vision: One episcope; three diascopes; three slits.
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 11 feet 6 inches.
   Width: 5 feet 9 inches.
   Height: 6 feet 7 inches.
10. Weight: 10½ tons.
11. Motor:
    Type: 4-cylinder.
    Cooling system:
    Horsepower: 80.
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum: 21 miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill: 88 miles.
16. Gear speeds and ratios: 4 forward; 1 reverse.
17. Turning radius:
18. Suspension, type: Forged steel links.
19. Performance:
    Ground clearance:
    Climbs 35° slopes.
    Negotiates vertical obstacle 21 inches high.
    Crosses trenches 5 feet 7 inches wide.
    Fords streams _____ deep.
20. Remarks: Similar to Renault R–1935.

FRENCH
ARMY

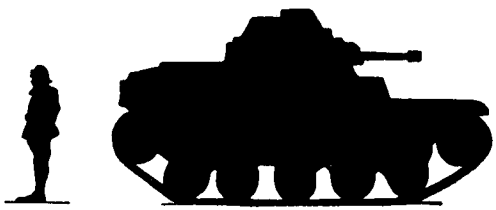
LIGHT TANK
AMC RENAULT, 1935

View



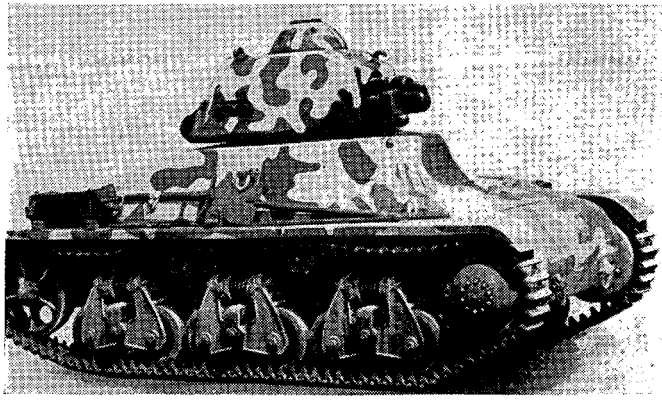
Front

Rear



Side

FRENCH ARMY

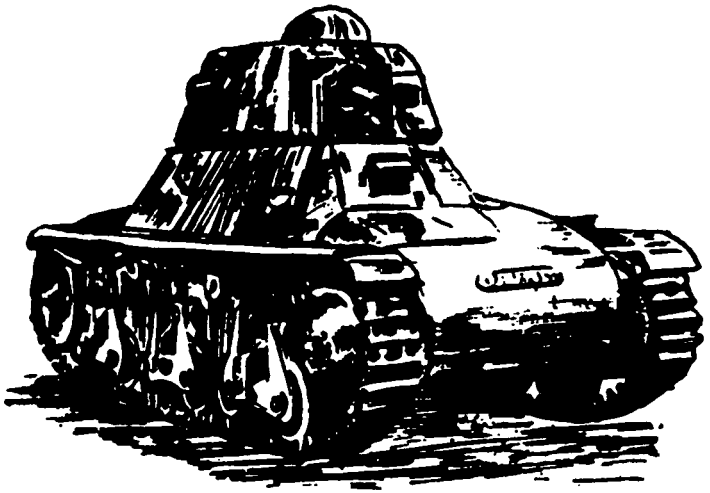


LIGHT TANK
H 1935

1. Crew: Two (one driver, one gunner).
2. Armament: One 37-mm gun; one light machine gun coaxially mounted.
3. Ammunition: 100 rounds for gun; 2,400 rounds for light machine gun.
4. Armor, thickness: 1½-inch cast steel.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Flag.
9. Dimensions:
   Length: 13 feet 8 inches.
   Width: 6 feet 1 inch.
   Height: 7 feet.
10. Weight: 11½ tons.
11. Motor:
    Type: 6-cylinder.
    Cooling system: Water.
    Horsepower: 75.
    Horsepower per ton:
12. Drive: Front sprocket.
13. Speed:
    Cross country:
    Road: 17 miles per hour.
    Maximum:
14. Radius of action: 82 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Six bogie wheels; three bogies, scissor articulation.
19. Performance:
    Ground clearance: 1 foot 3 inches.
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 7 inches high.
    Crosses trenches 4 feet 11 inches wide.
    Fords streams 2 feet 7 inches deep.
20. Remarks: A large number of these tanks were in existence and may be easily mass produced. An improved model was in production.

FRENCH
ARMY

LIGHT TANK
H 1935



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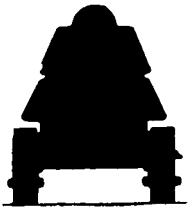


Front

Rear

Side

FRENCH
ARMY

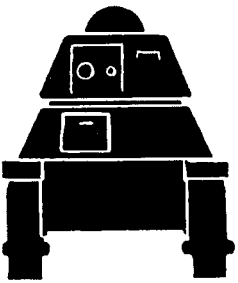
LIGHT TANK
H 1939

1. Crew: Two (one driver, one gunner).
2. Armament: One 37-mm gun; one light machine gun coaxially mounted.
3. Ammunition: 100 rounds for gun; 2,400 rounds for light machine gun.
4. Armor, thickness: 1½-inch cast steel.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Flag.
9. Dimensions:
   Length: 13 feet 8 inches.
   Width: 6 feet 1 inch.
   Height: 7 feet.
10. Weight: 12 tons.
11. Motor:
    Type: 6-cylinder.
    Cooling system: Water.
    Horsepower: 120.
    Horsepower per ton:
12. Drive: Front sprocket.
13. Speed:
    Cross country:
    Road: 26 miles per hour.
    Maximum:
14. Radius of action: 130 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Six bogie wheels; three bogies, scissor articulation.
19. Performance:
    Ground clearance: 1 foot 3 inches.
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 7 inches high.
    Crosses trenches 4 feet 11 inches wide.
    Fords streams 2 feet 7 inches deep.
20. Remarks: Replacing H 35 (Serial 3).

FRENCH
ARMY

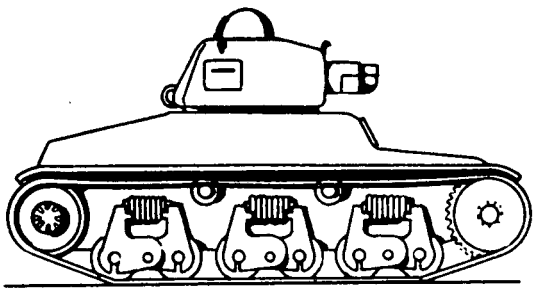
LIGHT TANK
H 1939

Top



Front

Rear



Side

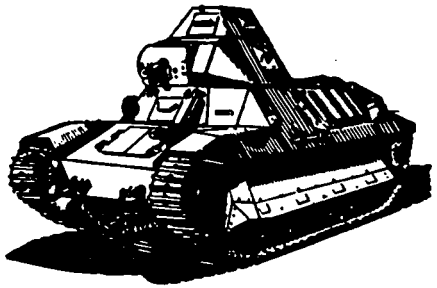
FRENCH
ARMY

LIGHT TANK
F C M 1936

1. Crew: Two (one driver, one gunner).
2. Armament: One 37-mm gun; one light machine gun.
3. Ammunition: 100 rounds for gun; 2,400 rounds for light machine gun.
4. Armor, thickness: 1½-inch rolled steel plate.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Flag.
9. Dimensions:
   Length: 14 feet 7 inches.
   Width: 7 feet.
   Height: 7 feet 2 inches.
10. Weight: 13 tons.
11. Motor:
    Type: 4-cylinder Diesel.
    Cooling system: Water.
    Horsepower: 100.
    Horsepower per ton:
12. Drive: Rear sprocket.
13. Speed:
    Cross country:
    Road: 15 miles per hour.
    Maximum:
14. Radius of action: 200 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Nine bogie wheels; four pairs bogies; one independent adjustment bogie wheel, coil springs.
19. Performance:
    Ground clearance: 1 foot 3 inches.
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 11 inches high.
    Crosses trenches 5 feet 10 inches wide.
    Fords streams 2 feet 9 inches deep.
20. Remarks: 100 of these were known to exist. The suspension is completely protected by skirting.

FRENCH ARMY

LIGHT TANK F C M 1936



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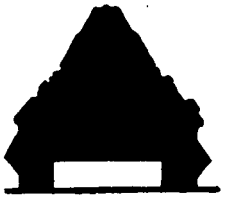
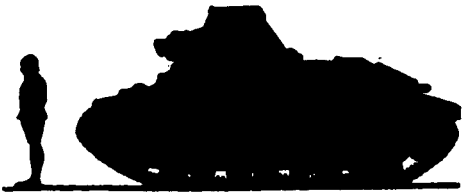


Front

Rear



Side

FRENCH
ARMY

MEDIUM TANK
LIGHT MEDIUM A M X

1. Crew:
2. Armament: One 47-mm gun; one light machine gun.
3. Ammunition: 120 rounds for gun.
4. Armor, thickness: 1½-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Radio; flag.
9. Dimensions:
   Length: 17 feet 0 inches.
   Width: 6 feet 9 inches.
   Height: 7 feet 4 inches.
10. Weight: 16 tons.
11. Motor:
    Type: Diesel.
    Cooling system:
    Horsepower: 130 to 150.
    Horsepower per ton:
12. Drive: Rear sprocket.
13. Speed:
    Cross country.
    Road: 13 miles per hour.
    Maximum:
14. Radius of action: 90 miles, or 8 hours.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: 16 bogie wheels; seven bogies; two independent bogies fore and aft; protected by skirting.
19. Performance:
    Ground clearance: 1 foot 1 inch.
    Climbs 40° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches 7 feet 0 inches wide.
    Fords streams 3 feet 11 inches deep.
20. Remarks:

FRENCH
ARMY

MEDIUM TANK
LIGHT MEDIUM A M X

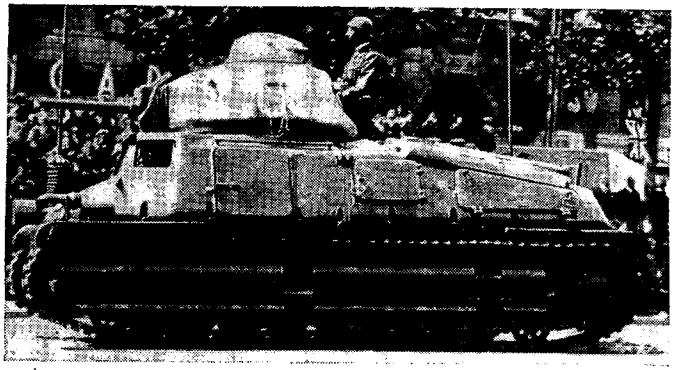
Top

Front

Rear

Side

FRENCH
ARMY



MEDIUM TANK
SOMUA S 1935

1. Crew: Three (driver, gunner, commander).
2. Armament: One 47-mm gun; one light machine gun.
3. Ammunition: 120 rounds for gun; 5,000 rounds for light machine gun.
4. Armor, thickness: 1½ inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Radio; flag.
9. Dimensions:
   Length: 17 feet 6 inches.
   Width: 6 feet 8 inches.
   Height: 8 feet 10 inches.
10. Weight: 18 tons.
11. Motor:
    Type: V–8.
    Cooling system: Water.
    Horsepower: 190.
    Horsepower per ton:
12. Drive: Rear sprocket.
13. Speed:
    Cross country:
    Road: 29 miles per hour.
    Maximum:
14. Radius of action: 140 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Nine bogie wheels; four bogies with leaf springing; one independent bogie wheel; protected by skirting.
19. Performance:
    Ground clearance: 1 foot 4 inches.
    Climbs 40° slopes.
    Negotiates vertical obstacle 2 feet 11 inches high.
    Crosses trenches 7 feet 10 inches wide.
    Fords streams 3 feet 3 inches deep.
20. Remarks: Considerable numbers were in existence.

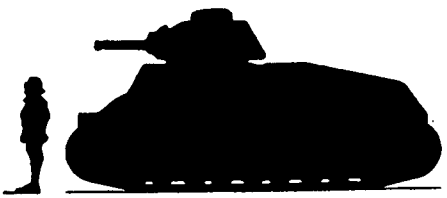
FRENCH
ARMY

MEDIUM TANK
SOMUA S 1935

Top

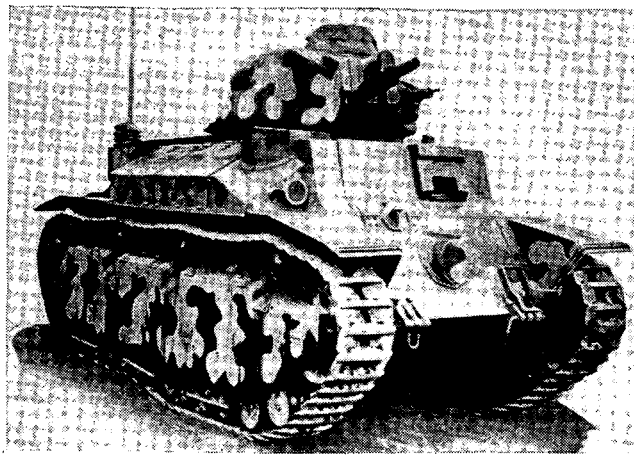
Front

Rear



Side

FRENCH ARMY

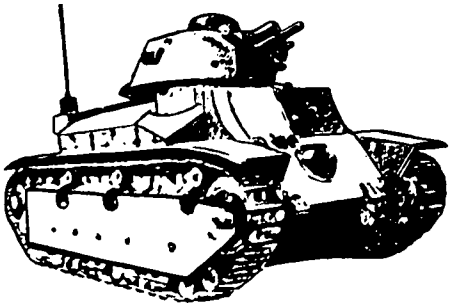


MEDIUM TANK
D–2

1. Crew: Three (driver, commander-gunner, operator-loader).
2. Armament: One 47-mm gun; two light machine guns.
3. Ammunition: 110 rounds for gun; 5,000 rounds for light machine gun.
4. Armor, thickness: 1½-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Radio; flag.
9. Dimensions:
   Length: 16 feet 7 inches.
   Width: 7 feet 2 inches.
   Height: 8 feet 9 inches.
10. Weight: 20 tons.
11. Motor:
    Type: 6-cylinder.
    Cooling system: Water.
    Horsepower: 150.
    Horsepower per ton:
12. Drive: Rear sprocket (?).
13. Speed:
    Cross country:
    Road: 14 miles per hour.
    Maximum:
14. Radius of action: 90 to 95 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Twelve small bogie wheels; six bogies with coil springing; suspension protected by skirting.
19. Performance:
    Ground clearance: 1 foot 4 inches.
    Climbs 45° slopes.
    Negotiates vertical obstacle 3 feet 3 inches high.
    Crosses trenches 7 feet 10 inches wide.
    Fords streams 3 feet 3 inches deep.
20. Remarks: Only a limited number of these vehicles were manufactured.

FRENCH
ARMY

MEDIUM TANK
D–2



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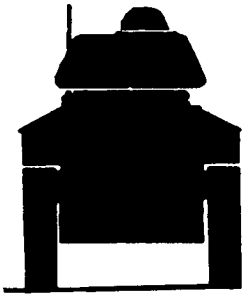
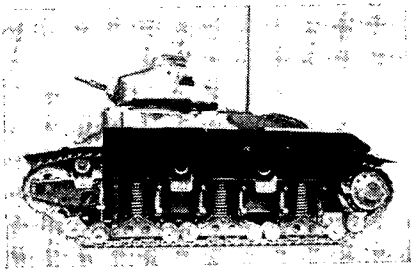


Front

Rear



Side

FRENCH
ARMY

MEDIUM TANK
SOMUA S AU 40

1. Crew: Three (four?) (driver, commander, gunner (loader?)).
2. Armament: One 75-mm gun.
3. Ammunition:
4. Armor, thickness: 1½-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Radio; flag.
9. Dimensions:
   Length: 19 feet 5 inches.
   Width: 6 feet 11 inches.
   Height: 8 feet 10 inches.
10. Weight: 21.5 tons.
11. Motor:
    Type: V–8.
    Cooling system: Water.
    Horsepower: 190.
    Horsepower per ton:
12. Drive: Rear sprocket.
13. Speed:
    Cross country:
    Road: 20 miles per hour.
    Maximum:
14. Radius of action: 140 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: (Same as Serial 8.)
19. Performance:
    Ground clearance: 1 foot 4 inches.
    Climbs _____° slopes.
    Negotiates vertical obstacle 2 feet 11 inches high.
    Crosses trenches 7 feet 10 inches wide.
    Fords streams 3 feet 3 inches deep.
20. Remarks: Thirty-two were in existence. Long-barreled 75-mm gun was mounted in the hull. Was to be used as armored artillery.

FRENCH
ARMY

MEDIUM TANK
SOMUA S AU 40

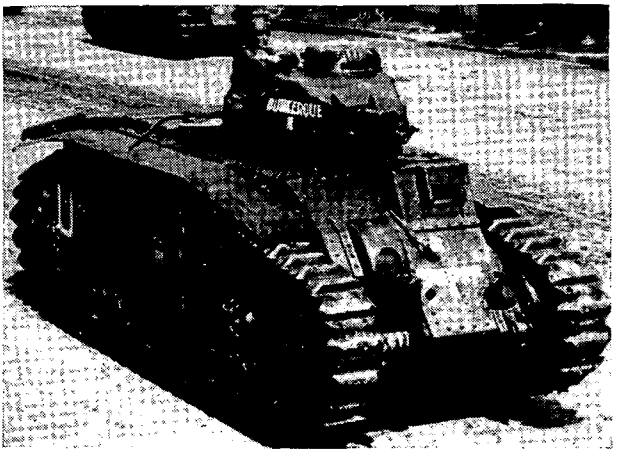
Top

Front

Rear

Side

FRENCH ARMY

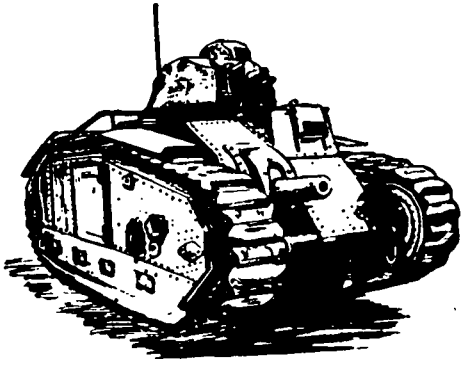


HEAVY TANK
CHAR B I

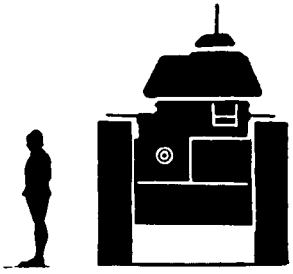
1. Crew: Four (driver, commander-gunner, wireless telegraph operator, loader-mechanic).
2. Armament: One 75-mm gun; one 47-mm gun; two light machine guns.
3. Ammunition: 72 rounds for 75-mm gun; 70 rounds for 47-mm gun.
4. Armor, thickness: 2¼-inch.
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications: Radio; lamp; flag.
9. Dimensions:
   Length: 20 feet 8 inches.
   Width: 8 feet 2 inches.
   Height: 9 feet.
10. Weight: 31 tons.
11. Motor:
    Type: 6-cylinder.
    Cooling system: Water.
    Horsepower: 270.
    Horsepower per ton:
12. Drive: Rear sprocket.
13. Speed:
    Cross country:
    Road: 17 miles per hour.
    Maximum:
14. Radius of action: 150 miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type: Sixteen small bogie wheels; three bogies or four wheels with leaf and coil springs; protected by skirting.
19. Performance:
    Ground clearance: 1 foot 7 inches.
    Climbs 40° slopes.
    Negotiates vertical obstacle 3 feet 10 inches high.
    Crosses trenches 9 feet wide.
    Fords streams 4 feet 10 inches deep.
20. Remarks: Considerable numbers were in existence. The armor was to be increased to 75-mm and engine to 350 horsepower Renault.

FRENCH
ARMY

HEAVY TANK
CHAR B I

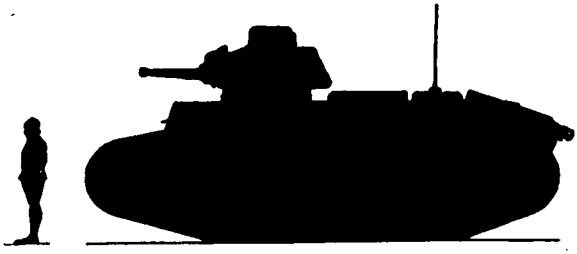


View



Front

Rear



Side

FRENCH
ARMY

HEAVY TANK
B–BIS

1. Crew: Four.
2. Armament: One 75-mm gun, one 47-mm gun, two machine guns.
3. Ammunition: 59 rounds for 75-mm gun; 60 rounds for 47-mm gun; 5,000 rounds for machine gun.
4. Armor, thickness: 2.36-inch.
   Upper structure:
   Front:
   Sides:
5. Turret: Yes.
6. Vision: One telescopic sight; one pair binoculars.
7. Ventilation:
8. Communications:
9. Dimensions:
   Length: 20 feet 9 inches.
   Width: 8 feet 2 inches.
   Height: 10 feet 0 inches.
10. Weight: 33.3 tons.
11. Motor:
    Type: 6-cylinder.
    Cooling system:
    Horsepower: 300.
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country:
    Road:
    Maximum: 18.6 miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill: 7 hours.
16. Gear speeds and ratios: 5 forward, 1 reverse.
17. Turning radius:
18. Suspension, type: Forged steel links.
19. Performance:
    Ground clearance:
    Climbs 42° slopes.
    Negotiates vertical obstacle 3 feet 6 inches high.
    Crosses trenches 9.02 feet wide.
    Fords streams _____ deep.
20. Remarks: Similar to Tank B except for armor, ammunition, and horsepower.

FRENCH
ARMY

HEAVY TANK
B-BIS

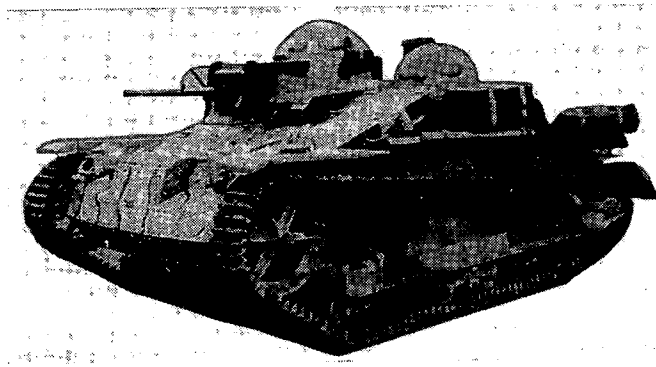
Top

Front

Rear

Side

FRENCH
ARMY



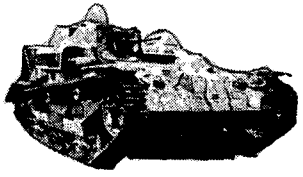
INFANTRY TRACTOR
RENAULT CHENILLETTE

1. Crew: Two.
2. Armament: One Hotchkiss machine gun.
3. Ammunition:
4. Armor, thickness:
   Upper structure:
   Front:
   Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   Length:
   Width:
   Height:
10. Weight: About 1½ tons.
11. Motor:
    Type:
    Cooling system:
    Horsepower:
    Horsepower per ton:
12. Drive:
13. Speed:
    Cross country: 5 miles per hour.
    Road:
    Maximum: 18 miles per hour.
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    Ground clearance:
    Climbs _____° slopes.
    Negotiates vertical obstacle _____ high.
    Crosses trenches 36 inches wide.
    Fords streams _____ deep.
20. Remarks: Provided with trailer and transport.

FRENCH
ARMY

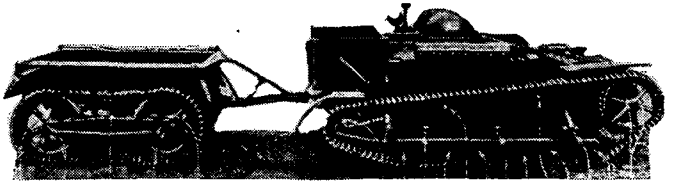
INFANTRY TRACTOR
RENAULT CHENILLETTE

Top



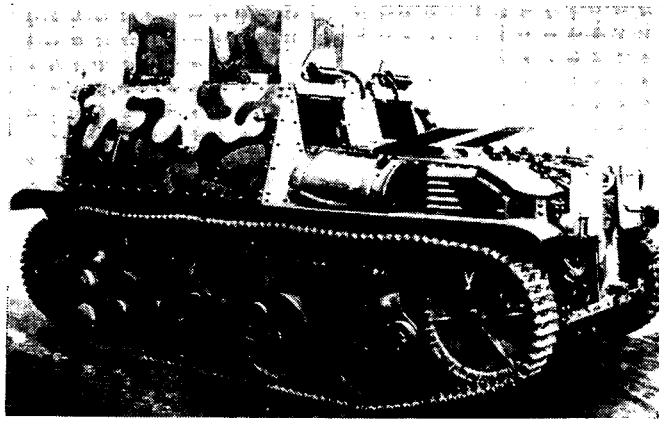
Front

Rear



Side

FRENCH
ARMY



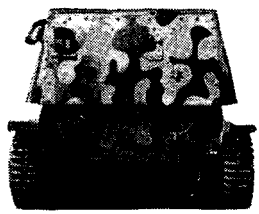
COMMANDERS' CAR
RENAULT

1. Crew:
2. Armament:
3. Ammunition:
4. Armor, thickness:
   - Upper structure:
   - Front:
   - Sides:
5. Turret:
6. Vision:
7. Ventilation:
8. Communications:
9. Dimensions:
   - Length:
   - Width:
   - Height:
10. Weight:
11. Motor:
    - Type:
    - Cooling system:
    - Horsepower:
    - Horsepower per ton:
12. Drive:
13. Speed:
    - Cross country:
    - Road:
    - Maximum:
14. Cruising radius, at _____ speed _____ miles.
15. Operating distance without refill:
16. Gear speeds and ratios:
17. Turning radius:
18. Suspension, type:
19. Performance:
    - Ground clearance:
    - Climbs _____° slopes.
    - Negotiates vertical obstacle _____ high.
    - Crosses trenches _____ wide.
    - Fords streams _____ deep.
20. Remarks:

FRENCH
ARMY

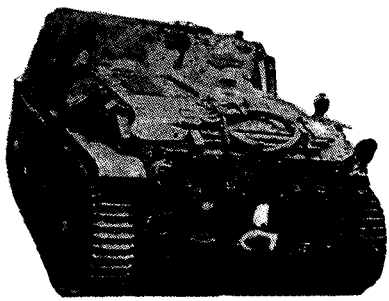
COMMANDERS' CAR
RENAULT

Top



Front

Rear



Side